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Montgomery, Alabama 36130-1463
(334) 271-7700 ▪ FAX (334) 271-7950

APR 13 2018

Allan Rice, City Administrator
City of Hoover
100 Municipal Drive
Hoover, AL 35216

RE: Draft Permit
NPDES Permit No. AL0041653
Riverchase WWTP
Jefferson County, Alabama

Dear Mr. Rice:

Transmitted herein is a draft of the referenced permit.

We would appreciate your comments on the permit within **30 days** of the date of this letter. Please direct any comments of a technical or administrative nature to the undersigned.

By copy of this letter and the draft permit, we are also requesting comments within the same time frame from EPA.

Please be aware that Part I.C.1.c of your permit requires that you apply for participation in the Department's web-based Electronic Environmental (E2) Reporting System Program for submittal of DMRs upon issuance of this permit unless valid justification as to why you cannot participate is submitted in writing. Please also be aware that Part I.C.2.e of your permit requires that you apply for participation in the Department's web-based electronic environmental (E2) reporting system for submittal of **SSOs** within 30 days of coverage under this permit unless valid justification as to why you cannot participate is submitted in writing. After issuance of the permit, SSO hotline notifications and hard copy Form 415 SSO reports may be used only with the written approval from the Department. The E2 Program allows ADEM to electronically validate, acknowledge receipt, and upload data to the state's central wastewater database. This improves the accuracy of reported compliance data and reduces costs to both the regulated community and ADEM. The Permittee Participation Package may be downloaded online at **https://e2.adem.alabama.gov/npdes** or you may obtain a hard copy by submitting a written request or by emailing e2admin@adem.alabama.gov.

Please also be aware that Part IV. of your permit requires that you develop, implement, and maintain a Sanitary Sewer Overflow Response Plan.

The Alabama Department of Environmental Management encourages you to voluntarily consider pollution prevention practices and alternatives at your facility. Pollution Prevention may assist you in complying with effluent limitations, and possibly reduce or eliminate monitoring requirements.

Should you have any questions, please contact the undersigned by email at ncaraway@adem.alabama.gov or by phone at (334) 274-4220.

Sincerely,

Nicholas Caraway
Municipal Section
Water Division

nwc/mfc
Enclosure

cc: Environmental Protection Agency Email
Ms. Elaine Snyder/U.S. Fish and Wildlife Service
Ms. Elizabeth Brown/Alabama Historical Commission
Advisory Council on Historic Preservation
Department of Conservation and Natural Resources

Birmingham Branch
110 Vulcan Road
Birmingham, AL 35209-4702
(205) 942-6168
(205) 941-1603 (FAX)

Decatur Branch
2715 Sandlin Road, S.W.
Decatur, AL 35603-1333
(256) 353-1713
(256) 340-9359 (FAX)

Mobile Branch
2204 Perimeter Road
Mobile, AL 36615-1131
(251) 450-3400
(251) 479-2593 (FAX)

Mobile-Coastal
3664 Dauphin Street, Suite B
Mobile, AL 36608
(251) 304-1176
(251) 304-1189 (FAX)

Alabama Department of Environmental Management

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT

PERMITTEE:	CITY OF HOOVER 100 MUNICIPAL DRIVE HOOVER, ALABAMA 35216	
FACILITY LOCATION:	RIVERCHASE WWTP 2004 PARKWAY RIVER ROAD HOOVER, ALABAMA JEFFERSON COUNTY	(3.0 MGD)
PERMIT NUMBER:	AL0041653	
RECEIVING WATERS:	CAHABA RIVER	

In accordance with and subject to the provisions of the Federal Water Pollution Control Act, as amended, 33 U.S.C. §§1251-1388 (the "FWPCA"), the Alabama Water Pollution Control Act, as amended, ***Code of Alabama 1975****, §§ 22-22-1 to 22-22-14 (the "AWPCA"), the Alabama Environmental Management Act, as amended,* ***Code of Alabama 1975****, §§22-22A-1 to 22-22A-17, and rules and regulations adopted thereunder, and subject further to the terms and conditions set forth in this permit, the Permittee is hereby authorized to discharge into the above-named receiving waters.*

ISSUANCE DATE:

EFFECTIVE DATE:

EXPIRATION DATE:

Draft

Alabama Department of Environmental Management

MUNICIPAL SECTION
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT

TABLE OF CONTENTS

ATTACHMENT:

PART I DISCHARGE LIMITATIONS, CONDITIONS, AND REQUIREMENTS

A. DISCHARGE LIMITATIONS AND MONITORING REQUIREMENTS

1. **Outfall 0011 Discharge Limits** – During the period beginning on the effective date of this permit and lasting through the expiration date of this permit, the Permittee is authorized to discharge from Outfall 0011, which is described more fully in the Permittee's application. Such discharge shall be limited and monitored by the Permittee as specified below:

Parameter	Discharge Limitations*							Monitoring Requirements**			
	Monthly Average	Weekly Average	Monthly Average	Weekly Average	Daily Minimum	Daily Maximum	Percent Removal	(1) Sample Location	(2) Sample Type	(3) Measurement Frequency	(4) Seasonal
Oxygen, Dissolved (DO) 00300 1 0 0	*****	*****	*****	*****	6.0 mg/l	*****	*****	E	GRAB	C	S
Oxygen, Dissolved (DO) 00300 1 0 0	*****	*****	*****	*****	5.0 mg/l	*****	*****	E	GRAB	C	W
pH 00400 1 0 0	*****	*****	*****	*****	6.0 S.U.	8.5 S.U.	*****	E	GRAB	C	*****
Solids, Total Suspended 00530 1 0 0	750 lbs/day	1125 lbs/day	30.0 mg/l	45.0 mg/l	*****	*****	*****	E	COMP24	C	*****
Solids, Total Suspended 00530 G 0 0	REPORT lbs/day	REPORT lbs/day	REPORT mg/l	REPORT mg/l	*****	*****	*****	I	COMP24	C	*****
Nitrogen, Ammonia Total (As N) 00610 1 0 0	25.0 lbs/day	37.5 lbs/day	1.0 mg/l	1.5 mg/l	*****	*****	*****	E	COMP24	C	S
Nitrogen, Ammonia Total (As N) 00610 1 0 0	50.0 lbs/day	75.0 lbs/day	2.0 mg/l	3.0 mg/l	*****	*****	*****	E	COMP24	C	W
Nitrogen, Kjeldahl Total (As N) 00625 1 0 0	50.0 lbs/day	75.0 lbs/day	2.0 mg/l	3.0 mg/l	*****	*****	*****	E	COMP24	C	S
Nitrogen, Kjeldahl Total (As N) 00625 1 0 0	100 lbs/day	150 lbs/day	4.0 mg/l	6.0 mg/l	*****	*****	*****	E	COMP24	C	W
Nitrite Plus Nitrate Total 1 Det. (As N) 00630 1 0 0	REPORT lbs/day	REPORT lbs/day	REPORT mg/l	REPORT mg/l	*****	*****	*****	E	COMP24	G	*****
Phosphorus, Total (As P) 00665 1 0 0	REPORT lbs/day	REPORT lbs/day	See Note (TP)	REPORT mg/l	*****	*****	*****	E	COMP24	C	GS
Phosphorus, Total (As P) 00665 1 0 0	REPORT lbs/day	REPORT lbs/day	REPORT mg/l	REPORT mg/l	*****	*****	*****	E	COMP24	C	NGS

* See Part II.C.1. (Bypass); Part II.C.2. (Upset)

** Monitoring Requirements

(1) Sample Location
I – Influent
E – Effluent
X – End Chlorine Contact Chamber
K - Percent Removal of the Monthly Avg. Influent Concentration from the Monthly Avg. Effluent Concentration.
RS - Receiving Stream
US – Upstream
DS – Downstream
MW – Monitoring Well
SW – Storm Water

(2) Sample Type:
CONTIN - Continuous
INSTAN - Instantaneous
COMP-8 - 8-Hour Composite
COMP24 - 24-Hour Composite
GRAB – Grab
CALCTD - Calculated

(3) Measurement Frequency: See also Part I.B.2.
A - 7 days per week
B - 5 days per week
C - 3 days per week
D - 2 days per week
E - 1 day per week
F - 2 days per month
G - 1 day per month
H - 1 day per quarter
J - Annual
Q - For Effluent Toxicity Testing, see Provision IV.B.

(4) Seasonal Limits:
S = Summer (May – November)
W = Winter (December - April)
ECS = E. coli Summer (May – October)
ECW = E. coli Winter (November – April)
GS = Growing Season (April – October)
NGS = Non Growing Season (November – March)

(TP) From the permit effective date through March 31, 2027 – Growing season monthly average limit = 0.2 mg/l
From April 1, 2027 forward – Growing season monthly average limit – 0.043 mg/l
For complete schedule, see Part I.E.2

(5) See Part IV.C. for Total Residual Chlorine (TRC). Monitoring for TRC is applicable if chlorine is utilized for disinfection purposes. If monitoring is not applicable during the monitoring period, enter "*9" or "NODI=9" (if hard copy) on the monthly DMR.

(6) A measurement of TRC below 0.05 mg/l shall be considered in compliance with the permit limitations above and should be reported as NODI=B or *B on the discharge monitoring reports.

Limits for Outfall 0011 continued on next page

2. **Outfall 0011 Discharge Limits (continued)** – During the period beginning on the effective date of this permit and lasting through the expiration date of this permit, the Permittee is authorized to discharge from Outfall 0011, which is described more fully in the Permittee's application. Such discharge shall be limited and monitored by the Permittee as specified below:

Parameter	Discharge Limitations*							Monitoring Requirements**			
	Monthly Average	Weekly Average	Monthly Average	Weekly Average	Daily Minimum	Daily Maximum	Percent Removal	(1) Sample Location	(2) Sample Type	(3) Measurement Frequency	(4) Seasonal
Copper Total Recoverable 01119 1 0 0	*****	*****	REPORT ug/l	*****	*****	REPORT ug/l	*****	E	GRAB	G	*****
Bis (2-Ethylhexyl) Phthalate 39100 1 0 0	*****	*****	16.7 ug/l	*****	*****	*****	*****	E	GRAB	G	*****
Flow, In Conduit or Thru Treatment Plant 50050 1 0 0	REPORT MGD	*****	*****	*****	*****	REPORT MGD	*****	E	CONTIN	A	*****
Chlorine, Total Residual See note (5)(6) 50060 1 0 0	*****	*****	0.014 mg/l	*****	*****	0.024 mg/l	*****	E	GRAB	C	*****
E. Coli 51040 1 0 0	*****	*****	126 col/100mL	*****	*****	298 col/100mL	*****	E	GRAB	C	ECS
E. Coli 51040 1 0 0	*****	*****	548 col/100mL	*****	*****	2507 col/100mL	*****	E	GRAB	C	ECW
BOD, Carbonaceous 05 Day, 20C 80082 G 0 0	REPORT lbs/day	REPORT lbs/day	REPORT mg/l	REPORT mg/l	*****	*****	*****	I	COMP24	C	*****
BOD, Carbonaceous 05 Day, 20C 80082 1 0 0	100 lbs/day	150 lbs/day	4.0 mg/l	6.0 mg/l	*****	*****	*****	E	COMP24	C	S
BOD, Carbonaceous 05 Day, 20C 80082 1 0 0	250 lbs/day	375 lbs/day	10.0 mg/l	15.0 mg/l	*****	*****	*****	E	COMP24	C	W
BOD, Carb-5 Day, 20 Deg C, Percent Remvl 80091 K 0 0	*****	*****	*****	*****	*****	*****	85%	K	CALCTD	G	*****
Solids, Suspended Percent Removal 81011 K 0 0	*****	*****	*****	*****	*****	*****	85%	K	CALCTD	G	*****

* See Part II.C.1. (Bypass); Part II.C.2. (Upset)
** Monitoring Requirements

(1) Sample Location
I – Influent
E – Effluent
X – End Chlorine Contact Chamber
K - Percent Removal of the Monthly Avg. Influent Concentration from the Monthly Avg. Effluent Concentration.
RS - Receiving Stream
US – Upstream
DS – Downstream
MW – Monitoring Well
SW – Storm Water

(2) Sample Type:
CONTIN - Continuous
INSTAN - Instantaneous
COMP-8 - 8-Hour Composite
COMP24 - 24-Hour Composite
GRAB – Grab
CALCTD - Calculated

(3) Measurement Frequency: See also Part I.B.2.
A - 7 days per week
B - 5 days per week
C - 3 days per week
D - 2 days per week
E - 1 day per week
F - 2 days per month
G - 1 day per month
H - 1 day per quarter
J - Annual
Q - For Effluent Toxicity Testing, see Provision IV.B.

(4) Seasonal Limits:
S = Summer (May – November)
W = Winter (December - April)
ECS = E. coli Summer (May – October)
ECW = E. coli Winter (November – April)
GS = Growing Season (April – October)
NGS = Non Growing Season (November – March)

(TP) From the permit effective date through March 31, 2027 – Growing season monthly average limit = 0.2 mg/l
From April 1, 2027 forward – Growing season monthly average limit – 0.043 mg/l
For complete schedule, see Part I.E.2

(5) See Part IV.C. for Total Residual Chlorine (TRC). Monitoring for TRC is applicable if chlorine is utilized for disinfection purposes. If monitoring is not applicable during the monitoring period, enter "*9" or "NODI=9" (if hard copy) on the monthly DMR.

(6) A measurement of TRC below 0.05 mg/l shall be considered in compliance with the permit limitations above and should be reported as NODI=B or *B on the discharge monitoring reports.

3. **Outfall 001T Discharge Limits** – This is an administrative outfall designation. Outfall 001T is the same physical outfall as Outfall 0011. Discharge from this outfall shall be limited and monitored by the Permittee as specified below:

Parameter	Discharge Limitations*							Monitoring Requirements**			
	Monthly Average	Weekly Average	Monthly Average	Weekly Average	Daily Minimum	Daily Maximum	Percent Removal	(1) Sample Location	(2) Sample Type	(3) Measurement Frequency	(4) Seasonal
Toxicity, Ceriodaphnia Chronic 61426 1 0 0	*****	Pass = 0 Fail = 1	*****	*****	*****	*****	*****	E	COMP24	Q	*****
Toxicity, Pimephales Chronic 61428 1 0 0	*****	Pass = 0 Fail = 1	*****	*****	*****	*****	*****	E	COMP24	Q	*****

* See Part II.C.1. (Bypass); Part II.C.2. (Upset)
** Monitoring Requirements

(1) Sample Location
I – Influent
E – Effluent
X – End Chlorine Contact Chamber
K - Percent Removal of the Monthly Avg. Influent Concentration from the Monthly Avg. Effluent Concentration.
RS - Receiving Stream
US – Upstream
DS – Downstream
MW – Monitoring Well
SW – Storm Water

(2) Sample Type:
CONTIN - Continuous
INSTAN - Instantaneous
COMP-8 - 8-Hour Composite
COMP24 - 24-Hour Composite
GRAB – Grab
CALCTD - Calculated

(3) Measurement Frequency: See also Part I.B.2.
A - 7 days per week
B - 5 days per week
C - 3 days per week
D - 2 days per week
E - 1 day per week
F - 2 days per month
G - 1 day per month
H - 1 day per quarter
J - Annual
Q - For Effluent Toxicity Testing, see Provision IV.B.

(4) Seasonal Limits:
S = Summer (May – November)
W = Winter (December - April)
ECS = E. coli Summer (May – October)
ECW = E. coli Winter (November – April)

4. **Storm Water Outfalls 002S, 003S and 004S Discharge Limits** – During the period beginning on the effective date of this permit and lasting through the expiration date of this permit, the Permittee is authorized to discharge from Outfalls 002S, 003S, and 004S, which are described more fully in the Permittee's application as storm water outfalls located at the Permittee's wastewater treatment plant. Such discharge shall be limited and monitored by the Permittee as specified below:

Parameter	Discharge Limitations*							Monitoring Requirements**			
	Monthly Average	Weekly Average	Monthly Average	Weekly Average	Daily Minimum	Daily Maximum	Percent Removal	(1) Sample Location	(2) Sample Type	(3) Measurement Frequency	(4) Seasonal
pH 00400 SW 0 0	*****	*****	*****	*****	REPORT S.U.	REPORT S.U.	*****	SW	GRAB	J	*****
Solids, Total Suspended 00530 SW 0 0	*****	*****	*****	*****	*****	REPORT mg/l	*****	SW	GRAB	J	*****
Oil & Grease 00556 SW 0 0	*****	*****	*****	*****	*****	15 mg/l	*****	SW	GRAB	J	*****
Nitrogen, Ammonia Total (As N) 00610 SW 0 0	*****	*****	*****	*****	*****	REPORT mg/l	*****	SW	GRAB	J	*****
Nitrogen, Kjeldahl Total (As N) 00625 SW 0 0	*****	*****	*****	*****	*****	REPORT mg/l	*****	SW	GRAB	J	*****
Nitrite Plus Nitrate Total 1 Det. (As N) 00630 SW 0 0	*****	*****	*****	*****	*****	REPORT mg/l	*****	SW	GRAB	J	*****
Phosphorus, Total (As P) 00665 SW 0 0	*****	*****	*****	*****	*****	REPORT mg/l	*****	SW	GRAB	J	*****
Flow, In Conduit or Thru Treatment Plant 50050 SW 0 0	*****	*****	*****	*****	*****	REPORT MGD	*****	SW	CALCTD	J	*****
E. Coli 51040 SW 0 0	*****	*****	*****	*****	*****	REPORT col/100mL	*****	SW	GRAB	J	*****
BOD, Carbonaceous 05 Day, 20C 80082 SW 0 0	*****	*****	*****	*****	*****	REPORT mg/l	*****	SW	GRAB	J	*****

* See Part II.C.1. (Bypass); Part II.C.2. (Upset)
** Monitoring Requirements

(1) Sample Location
I – Influent
E – Effluent
X – End Chlorine Contact Chamber
K - Percent Removal of the Monthly Avg. Influent Concentration from the Monthly Avg. Effluent Concentration.
RS - Receiving Stream
US – Upstream
DS – Downstream
MW – Monitoring Well
SW – Storm Water

(2) Sample Type:
CONTIN - Continuous
INSTAN - Instantaneous
COMP-8 - 8-Hour Composite
COMP24 - 24-Hour Composite
GRAB – Grab
CALCTD - Calculated

(3) Measurement Frequency: See also Part I.B.2.
A - 7 days per week
B - 5 days per week
C - 3 days per week
D - 2 days per week
E - 1 day per week
F - 2 days per month
G - 1 day per month
H - 1 day per quarter
J - Annual
Q - For Effluent Toxicity Testing, see Provision IV.B.

(4) Seasonal Limits:
S = Summer (May – November)
W = Winter (December - April)
ECS = E. coli Summer (May – October)
ECW = E. coli Winter (November – April)

B. DISCHARGE MONITORING AND RECORD KEEPING REQUIREMENTS

1. Representative Sampling

   Sample collection and measurement actions shall be representative of the volume and nature of the monitored discharge and shall be in accordance with the provisions of this permit. The effluent sampling point shall be at the nearest accessible location just prior to discharge and after final treatment, unless otherwise specified in the permit.

2. Measurement Frequency

   Measurement frequency requirements found in Provision I.A. shall mean:

   a. Seven days per week shall mean daily.

   b. Five days per week shall mean any five days of discharge during a calendar weekly period of Sunday through Saturday.

   c. Three days per week shall mean any three days of discharge during a calendar week.

   d. Two days per week shall mean any two days of discharge during a calendar week.

   e. One day per week shall mean any day of discharge during a calendar week.

   f. Two days per month shall mean any two days of discharge during the month that are no less than seven days apart. However, if discharges occur only during one seven-day period in a month, then two days per month shall mean any two days of discharge during that seven day period.

   g. One day per month shall mean any day of discharge during the calendar month.

   h. Quarterly shall mean any day of discharge during each calendar quarter.

   i. The Permittee may increase the frequency of sampling, listed in Provisions I.B.2.a through I.B.2.h; however, all sampling results are to be reported to the Department.

3. Test Procedures

   For the purpose of reporting and compliance, Permittees shall use one of the following procedures:

   a. For parameters with an EPA established Minimum Level (ML), report the measured value if the analytical result is at or above the ML and report "0" for values below the ML. Test procedures for the analysis of pollutants shall conform to 40 CFR Part 136 and guidelines published pursuant to Section 304(h) of the FWPCA, 33 U.S.C. Section 1314(h). If more than one method for analysis of a substance is approved for use, a method having a minimum level lower than the permit limit shall be used. If the minimum level of all methods is higher than the permit limit, the method having the lowest minimum level shall be used and a report of less than the minimum level shall be reported as zero and will constitute compliance, however should EPA approve a method with a lower minimum level during the term of this permit the Permittee shall use the newly approved method.

   b. For pollutants parameters without an established ML, an interim ML may be utilized. The interim ML shall be calculated as 3.18 times the Method Detection Level (MDL) calculated pursuant to 40 CFR Part 136, Appendix B.

      Permittees may develop an effluent matrix-specific ML, where an effluent matrix prevents attainment of the established ML. However, a matrix specific ML shall be based upon proper laboratory method and technique. Matrix-specific MLs must be approved by the Department, and may be developed by the Permittee during permit issuance, reissuance, modification, or during compliance schedule.

      In either case the measured value should be reported if the analytical result is at or above the ML and "0" reported for values below the ML.

   c. For parameters without an EPA established ML, interim ML, or matrix-specific ML, a report of less than the detection limit shall constitute compliance if the detection limit of all analytical methods is higher than the permit limit. For the purpose of calculating a monthly average, "0" shall be used for values reported less than the detection limit.

      The Minimum Level utilized for procedures a and b above shall be reported on the Permittee's DMR. When an EPA approved test procedure for analysis of a pollutant does not exist, the Director shall approve the procedure to be used.

4. Recording of Results

   For each measurement or sample taken pursuant to the requirements of this permit, the Permittee shall record the following information:

   a. The facility name and location, point source number, date, time and exact place of sampling;

b. The name(s) of person(s) who obtained the samples or measurements;

c. The dates and times the analyses were performed;

d. The name(s) of the person(s) who performed the analyses;

e. The analytical techniques or methods used, including source of method and method number; and

f. The results of all required analyses.

5. Records Retention and Production

a. The Permittee shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by the permit, and records of all data used to complete the above reports or the application for this permit, for a period of at least three years from the date of the sample measurement, report or application. This period may be extended by request of the Director at any time. If litigation or other enforcement action, under the AWPCA and/or the FWPCA, is ongoing which involves any of the above records, the records shall be kept until the litigation is resolved. Upon the written request of the Director or his designee, the Permittee shall provide the Director with a copy of any record required to be retained by this paragraph. Copies of these records should not be submitted unless requested.

b. All records required to be kept for a period of three years shall be kept at the permitted facility or an alternate location approved by the Department in writing and shall be available for inspection.

6. Reduction, Suspension or Termination of Monitoring and/or Reporting

a. The Director may, with respect to any point source identified in Provision I.A. of this permit, authorize the Permittee to reduce, suspend or terminate the monitoring and/or reporting required by this permit upon the submission of a written request for such reduction, suspension or termination by the Permittee, supported by sufficient data which demonstrates to the satisfaction of the Director that the discharge from such point source will continuously meet the discharge limitations specified in Provision I.A. of this permit.

b. It remains the responsibility of the Permittee to comply with the monitoring and reporting requirements of this permit until written authorization to reduce, suspend or terminate such monitoring and/or reporting is received by the Permittee from the Director.

7. Monitoring Equipment and Instrumentation

All equipment and instrumentation used to determine compliance with the requirements of this permit shall be installed, maintained, and calibrated in accordance with the manufacturer's instructions or, in the absence of manufacturer's instructions, in accordance with accepted practices. At a minimum, flow measurement devices shall be calibrated at least once every 12 months.

C. DISCHARGE REPORTING REQUIREMENTS

1. Reporting of Monitoring Requirements

a. The Permittee shall conduct the required monitoring in accordance with the following schedule:

(1) **MONITORING REQUIRED MORE FREQUENTLY THAN MONTHLY AND MONTHLY** shall be conducted during the first full month following the effective date of coverage under this permit and every month thereafter.

(2) **QUARTERLY MONITORING** shall be conducted at least once during each calendar quarter. Calendar quarters are the periods of January through March, April through June, July through September, and October through December. The Permittee shall conduct the quarterly monitoring during the first complete calendar quarter following the effective date of this permit and is then required to monitor once during each quarter thereafter. Quarterly monitoring should be reported on the last DMR due for the quarter (i.e., March, June, September and December DMRs).

(3) **SEMIANNUAL MONITORING** shall be conducted at least once during the period of January through June and at least once during the period of July through December. The Permittee shall conduct the semiannual monitoring during the first complete calendar semiannual period following the effective date of this permit and is then required to monitor once during each semiannual period thereafter. Semiannual monitoring may be done anytime during the semiannual period, unless restricted elsewhere in this permit, but it should be reported on the last DMR due for the month of the semiannual period (i.e., June and December DMRs).

(4) **ANNUAL MONITORING** shall be conducted at least once during the period of January through December. The Permittee shall conduct the annual monitoring during the first complete calendar annual period following the effective date of this permit and is then required to monitor once during each annual period thereafter.

Annual monitoring may be done anytime during the year, unless restricted elsewhere in this permit, but it should be reported on the December DMR.

b. The Permittee shall submit discharge monitoring reports (DMRs) on the forms approved by the Department and in accordance with the following schedule:

(1) **REPORTS OF MORE FREQUENTLY THAN MONTHLY AND MONTHLY TESTING** shall be submitted on a monthly basis. The first report is due on the 28th day of the month following the month the permit becomes effective. The reports shall be submitted so that they are received by the Department no later than the 28th day of the month following the reporting period, unless otherwise directed by the Department.

(2) **REPORTS OF QUARTERLY TESTING** shall be submitted on a quarterly basis. The first report is due on the 28th day of the month following the month the permit becomes effective. The reports shall be submitted so that they are received by the Department no later than the 28th day of the month following the reporting period, unless otherwise directed by the Department.

(3) **REPORTS OF SEMIANNUAL TESTING** shall be submitted on a semiannual basis. The reports are due on the 28th day of JANUARY and the 28th day of JULY. The reports shall be submitted so that they are received by the Department no later than the 28th day of the month following the reporting period, unless otherwise directed by the Department.

(4) **REPORTS OF ANNUAL TESTING** shall be submitted on an annual basis. Unless specified elsewhere in the permit, the first report is due on the 28th day of JANUARY. The reports shall be submitted so that they are received by the Department no later than the 28th day of the month following the reporting period, unless otherwise directed by the Department.

c. Except as allowed by Provision I.C.1.c.(1) or (2), the permittee shall submit all Discharge Monitoring Reports (DMRs) required by Provision I.C.1.b. by utilizing the Department's web-based Electronic Environmental (E2) Reporting System.

(1) If the permittee is unable to complete the electronic submittal of DMR data due to technical problems originating with the Department's E2 Reporting System (this could include entry/submittal issues with an entire set of DMRs or individual parameters), the permittee is not relieved of their obligation to submit DMR data to the Department by the date specified in Provision I.C.1.b., unless otherwise directed by the Department.

If the E2 Reporting System is down on the 28th day of the month in which the DMR is due or is down for an extended period of time, as determined by the Department, when a DMR is required to be submitted, the permittee may submit the data in an alternate manner and format acceptable to the Department. Preapproved alternate acceptable methods include faxing, e-mailing, mailing, or hand-delivery of data such that they are received by the required reporting date. Within five calendar days of the E2 Reporting System resuming operation, the permittee shall enter the data into the E2 Reporting System, unless an alternate timeframe is approved by the Department. An attachment should be included with the E2 DMR submittal verifying the original submittal date (date of the fax, copy of dated e-mail, or hand-delivery stamped date), if applicable.

(2) The permittee may submit a request to the Department for a temporary electronic reporting waiver for DMR submittals. The waiver request should include the permit number; permittee name; facility/site name; facility address; name, address, and contact information for the responsible official or duly authorized representative; a detailed statement regarding the basis for requesting such a waiver; and the duration for which the waiver is requested. Approved electronic reporting waivers are not transferrable.

A permittee with an approved electronic reporting waiver for DMRs may submit hard copy DMRs for the period that the approved electronic reporting waiver request is effective. The permittee shall submit the Department-approved DMR forms to the address listed in Provision I.C.1.e.

(3) If a permittee is allowed to submit a hard copy DMR, the DMR must be legible and bear an original signature. Photo and electronic copies of the signature are not acceptable and shall not satisfy the reporting requirements of this permit.

(4) If the permittee, using approved analytical methods as specified in Provision I.B.2, monitors any discharge from a point source for a limited substance identified in Provision I.A. of this permit more frequently than required by this permit, the results of such monitoring shall be included in the calculation and reporting of values on the DMR and the increased frequency shall be indicated on the DMR.

(5) In the event no discharge from a point source identified in Provision I.A. of this permit and described more fully in the permittee's application occurs during a monitoring period, the permittee shall report "No Discharge" for such period on the appropriate DMR.

d. All reports and forms required to be submitted by this permit, the AWPCA and the Department's Rules and Regulations, shall be electronically signed (or, if allowed by the Department, traditionally signed) by a "responsible

official" of the permittee as defined in ADEM Administrative Code Rule 335-6-6-.09 or a "duly authorized representative" of such official as defined in ADEM Administrative Code Rule 335-6-6-.09 and shall bear the following certification:

> **"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."**

e. Discharge Monitoring Reports required by this permit, the AWPCA, and the Department's Rules that are being submitted in hard copy shall be addressed to:

Alabama Department of Environmental Management
Environmental Data Section, Permits & Services Division
Post Office Box 301463
Montgomery, Alabama 36130-1463

Certified and Registered Mail containing Discharge Monitoring Reports shall be addressed to:

Alabama Department of Environmental Management
Environmental Data Section, Permits & Services Division
1400 Coliseum Boulevard
Montgomery, Alabama 36110-2400

f. All other correspondence and reports required to be submitted by this permit, the AWPCA, and the Department's Rules shall be addressed to:

Alabama Department of Environmental Management
Municipal Section, Water Division
Post Office Box 301463
Montgomery, Alabama 36130-1463

Certified and Registered Mail shall be addressed to:

Alabama Department of Environmental Management
Municipal Section, Water Division
1400 Coliseum Boulevard
Montgomery, Alabama 36110-2400

g. If this permit is a reissuance, then the permittee shall continue to submit DMRs in accordance with the requirements of their previous permit until such time as DMRs are due as discussed in Part I.C.1.b. above.

2. Noncompliance Notifications and Reports

a. The Permittee shall notify the Department if, for any reason, the Permittee's discharge:

(1) Does not comply with any daily minimum or maximum discharge limitation for an effluent characteristic specified in Provision I.A. of this permit which is denoted by an "(X)";

(2) Potentially threatens human health or welfare;

(3) Threatens fish or aquatic life;

(4) Causes an in-stream water quality criterion to be exceeded;

(5) Does not comply with an applicable toxic pollutant effluent standard or prohibition established under Section 307(a) of the FWPCA, 33 U.S.C. Section 1317(a);

(6) Contains a quantity of a hazardous substance that may be harmful to public health or welfare under Section 311(b)(4) of the FWPCA, 33 U.S.C. Section 1321(b)(4);

(7) Exceeds any discharge limitation for an effluent parameter listed in Part I.A. as a result of an unanticipated bypass or upset; or

(8) Is an unpermitted direct or indirect discharge of a pollutant to a water of the state. (Note that unpermitted discharges properly reported to the Department under any other requirement are not required to be reported under this provision.)

The Permittee shall orally or electronically provide notification of any of the above occurrences, describing the circumstances and potential effects, to the Director or Designee within 24-hours after the Permittee becomes aware of the occurrence of such discharge. In addition to the oral or electronic notification, the Permittee shall submit a report to the Director or Designee, as provided in Provision I.C.2.c. or I.C.2.e., no later than five days after becoming aware of the occurrence of such discharge or occurrence.

b. If, for any reason, the Permittee's discharge does not comply with any limitation of this permit, then the Permittee shall submit a written report to the Director or Designee, as provided in Provision I.C.2.c below. This report must be submitted with the next Discharge Monitoring Report required to be submitted by Provision I.C.1 of this permit after becoming aware of the occurrence of such noncompliance.

c. Except for notifications and reports of notifiable SSOs which shall be submitted in accordance with the applicable Provisions of this permit, the Permittee shall submit the reports required under Provisions I.C.2.a. and b. to the Director or Designee on ADEM Form 421. The completed Form must document the following information:

(1) A description of the discharge and cause of noncompliance;

(2) The period of noncompliance, including exact dates, times, and duration of the noncompliance. If the noncompliance is not corrected by the due date of the written report, then the Permittee shall provide an estimated date by which the noncompliance will be corrected; and

(3) A description of the steps taken by the Permittee and the steps planned to be taken by the Permittee to reduce or eliminate the noncompliant discharge and to prevent its recurrence.

d. Immediate notification

The Permittee shall provide notification to the Director, the public, the county health department, and any other affected entity such as public water systems, as soon as possible upon becoming aware of any notifiable sanitary sewer overflow. Notification to the Director shall be completed utilizing the Department's web-based electronic environmental SSO reporting system in accordance with Provision I.C.2.e.

e. The Department is utilizing a web-based electronic environmental (E2) reporting system for notification and submittal of SSO reports. **If the Permittee is not already participating in the E2 Reporting System for SSO reports, the Permittee must apply for participation in the system within 30 days of coverage under this permit unless the Permittee submits in writing valid justification as to why it cannot participate and the Department approves in writing utilization of verbal notifications and hard copy SSO report submittals.** Once the Permittee is enrolled in the E2 Reporting System for SSO reports, the Permittee must utilize the system for notification and submittal of all SSO reports unless otherwise allowed by this permit. The Permittee shall include in the SSO reports the information requested by ADEM Form 415. In addition, the Permittee shall include the latititude and longitude of the SSO in the report except when the SSO is a result of an extreme weather event (e.g., hurricane). To participate in the E2 Reporting System for SSO reports, the Permittee Participation Package may be downloaded online at **https://e2.adem.alabama.gov/npdes**. If the E2 Reporting System is down (i.e., electronic submittal of SSO data cannot be completed due to technical problems originating with the Department's system), the Permittee is not relieved of its obligation to notify the Department or submit SSO reports to the Department by the required submittal date, and the Permittee shall submit the data in an alternate manner and format acceptable to the Department. Preapproved alternate acceptable methods include verbal reports, reports submitted via the SSO hotline, or reports submitted via fax, e-mail, mail, or hand-delivery such that they are received by the required reporting date. Within five calendar days of the E2 Reporting System resuming operation, the Permittee shall enter the data into the E2 Reporting System, unless an alternate timeframe is approved by the Department. For any alternate notification, records of the date, time, notification method, and person submitting the notification should be maintained by the Permittee. If a Permittee is allowed to submit SSO reports via an alternate method, the SSO report must be in a format approved by the Department and must be legible.

f. The Permittee shall maintain a record of all known wastewater discharge points that are not authorized as permitted outfalls, including but not limited to SSOs. The Permittee shall include this record in its Municipal Water Pollution Prevention (MWPP) Annual Reports, which shall be submitted to the Department each year by May 31st for the prior calendar year period beginning January 1st and ending December 31st. The MWPP Annual Reports shall contain a list of all known wastewater discharge points that are not authorized as permitted outfalls and any discharges that occur prior to the headworks of the wastewater treatment plant covered by this permit. The Permittee shall also provide in the MWPP Annual Reports a list of any discharges reported during the applicable time period in accordance with Provision I.C.2.a. The Permittee shall include in its MWPP Annual Reports the following information for each known unpermitted discharge that occurred:

(1) The cause of the discharge;

(2) Date, duration and volume of discharge (estimate if unknown);

(3) Description of the source (e.g., manhole, lift station);

(4) Location of the discharge, by latitude and longitude (or other appropriate method as approved by the Department);

(5) The ultimate destination of the flow (e.g., surface waterbody, municipal separate storm sewer to surface waterbody). Location should be shown on a USGS quad sheet or copy thereof; and

(6) Corrective actions taken and/or planned to eliminate future discharges.

D. OTHER REPORTING AND NOTIFICATION REQUIREMENTS

1. Anticipated Noncompliance

The Permittee shall give the Director written advance notice of any planned changes or other circumstances regarding a facility which may result in noncompliance with permit requirements.

2. Termination of Discharge

The Permittee shall notify the Director, in writing, when all discharges from any point source(s) identified in Provision I. A. of this permit have permanently ceased. This notification shall serve as sufficient cause for instituting procedures for modification or termination of the permit.

3. Updating Information

a. The Permittee shall inform the Director of any change in the Permittee's mailing address or telephone number or in the Permittee's designation of a facility contact or office having the authority and responsibility to prevent and abate violations of the AWPCA, the Department's Rules and the terms and conditions of this permit, in writing, no later than ten (10) days after such change. Upon request of the Director or his designee, the Permittee shall furnish the Director with an update of any information provided in the permit application.

b. If the Permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or in any report to the Director, it shall promptly submit such facts or information with a written explanation for the mistake and/or omission.

4. Duty to Provide Information

The Permittee shall furnish to the Director, within a reasonable time, any information which the Director or his designee may request to determine whether cause exists for modifying, revoking and re-issuing, suspending, or terminating this permit, in whole or in part, or to determine compliance with this permit.

E. SCHEDULE OF COMPLIANCE

1. Compliance with discharge limits

The Permittee shall achieve compliance with the discharge limitations specified in Provision I. A. in accordance with the following schedule:

2. Compliance with Total Phosphorus limits (Note: Growing season is April – October)

The Permittee shall achieve compliance with the discharge limitations for Total Phosphorus (TP) specified in Provision I.A according to the following schedule:

July 1, 2018 July 1, 2019 July 1, 2020 July 1, 2021 July 1, 2022 July 1, 2023 July 1, 2024 July 1, 2025 July 1, 2026	Submit report describing the Permittee's progress towards achieving compliance with TP limit of 0.043 mg/L. The report should include a discussion of the projects completed to date and a schedule for any projects that remain to be completed. The following should be included in the report, where applicable: pollution abatement program and preliminary plans; final plans, specifications, and drawings; date(s) of initiation of construction; and date(s) of attainment of operational status.
April 1, 2027	**Achieve compliance with TP limit of 0.043 mg/L (growing season monthly average)**

COMPLIANCE SHALL BE ATTAINED ON THE EFFECTIVE DATE OF THIS PERMIT

3. Schedule

No later than 14 calendar days following a date identified in the above schedule of compliance, the permittee shall submit either a report of progress or, in the case of specific actions being required by identified dates, a written notice of compliance or noncompliance. In the latter case, the notice shall include the cause of noncompliance, any remedial actions taken, and the probability of meeting the next scheduled requirement.

PART II OTHER REQUIREMENTS, RESPONSIBILITIES, AND DUTIES

A. OPERATIONAL AND MANAGEMENT REQUIREMENTS

1. Facilities Operation and Maintenance

   The Permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the Permittee to achieve compliance with the conditions of the permit. Proper operation and maintenance includes effective performance, adequate funding, adequate operator staffing and training, and adequate laboratory and process controls, including appropriate quality assurance procedures. This provision requires the operation of backup or auxiliary facilities only when necessary to achieve compliance with the conditions of the permit.

2. Best Management Practices (BMP)

   a. Dilution water shall not be added to achieve compliance with discharge limitations except when the Director or his designee has granted prior written authorization for dilution to meet water quality requirements.

   b. The Permittee shall prepare, implement, and maintain a Spill Prevention, Control and Countermeasures (SPCC) Plan in accordance with 40 C.F.R. Section 112 if required thereby.

   c. The Permittee shall prepare, submit for approval and implement a BMP Plan for containment of any or all process liquids or solids, in a manner such that these materials do not present a significant potential for discharge, if so required by the Director or his designee. When submitted and approved, the BMP Plan shall become a part of this permit and all requirements of the BMP Plan shall become requirements of this permit.

3. Certified Operator

   The Permittee shall not operate any wastewater treatment plant unless the competency of the operator to operate such plant has been duly certified by the Director pursuant to AWPCA, and meets the requirements specified in ADEM Administrative Code, Rule 335-10-1.

B. OTHER RESPONSIBILITIES

1. Duty to Mitigate Adverse Impacts

   The Permittee shall promptly take all reasonable steps to mitigate and minimize or prevent any adverse impact on human health or the environment resulting from noncompliance with any discharge limitation specified in Provision I. A. of this permit, including such accelerated or additional monitoring of the discharge and/or the receiving waterbody as necessary to determine the nature and impact of the noncomplying discharge.

2. Right of Entry and Inspection

   The Permittee shall allow the Director, or an authorized representative, upon the presentation of proper credentials and other documents as may be required by law to:

   (1) Enter upon the Permittee's premises where a regulated facility or activity or point source is located or conducted, or where records must be kept under the conditions of the permit;

   (2) Have access to and copy, at reasonable times, any records that must be kept under the conditions of the permits;

   (3) Inspect any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under the permit; and

   (4) Sample or monitor, for the purposes of assuring permit compliance or as otherwise authorized by the AWPCA, any substances or parameters at any location.

C. BYPASS AND UPSET

1. Bypass

   a. Any bypass is prohibited except as provided in b. and c. below:

   b. A bypass is not prohibited if:

      (1) It does not cause any discharge limitation specified in Provision I. A. of this permit to be exceeded;

      (2) It enters the same receiving stream as the permitted outfall; and

      (3) It is necessary for essential maintenance of a treatment or control facility or system to assure efficient operation of such facility or system.

   c. A bypass is not prohibited and need not meet the discharge limitations specified in Provision I. A. of this permit if:

      (1) It is unavoidable to prevent loss of life, personal injury, or severe property damage;

(2) There are no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime (this condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass which occurred during normal periods of equipment downtime or preventive maintenance); and

(3) The Permittee submits a written request for authorization to bypass to the Director at least ten (10) days prior to the anticipated bypass (if possible), the Permittee is granted such authorization, and the Permittee complies with any conditions imposed by the Director to minimize any adverse impact on human health or the environment resulting from the bypass.

d. The Permittee has the burden of establishing that each of the conditions of Provision II. C. 1. b. or c. have been met to qualify for an exception to the general prohibition against bypassing contained in a. and an exemption, where applicable, from the discharge limitations specified in Provision I. A. of this permit.

2. Upset

a. A discharge which results from an upset need not meet the discharge limitations specified in Provision I. A. of this permit if:

(1) No later than 24-hours after becoming aware of the occurrence of the upset, the Permittee orally reports the occurrence and circumstances of the upset to the Director or his designee; and

(2) No later than five (5) days after becoming aware of the occurrence of the upset, the Permittee furnishes the Director with evidence, including properly signed, contemporaneous operating logs, or other relevant evidence, demonstrating that:

(i) An upset occurred;

(ii) The Permittee can identify the specific cause(s) of the upset;

(iii) The Permittee's facility was being properly operated at the time of the upset; and

(iv) The Permittee promptly took all reasonable steps to minimize any adverse impact on human health or the environment resulting from the upset.

b. The Permittee has the burden of establishing that each of the conditions of Provision II C. 2. a. of this permit have been met to qualify for an exemption from the discharge limitations specified in Provision I. A. of this permit.

D. DUTY TO COMPLY WITH PERMIT, RULES, AND STATUTES

1. Duty to Comply

a. The Permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the AWPCA and the FWPCA and is grounds for enforcement action, for permit termination, revocation and reissuance, suspension, modification, or denial of a permit renewal application.

b. The necessity to halt or reduce production or other activities in order to maintain compliance with the conditions of the permit shall not be a defense for a Permittee in an enforcement action.

c. The discharge of a pollutant from a source not specifically identified in the permit application for this permit and not specifically included in the description of an outfall in this permit is not authorized and shall constitute noncompliance with this permit.

d. The Permittee shall take all reasonable steps, including cessation of production or other activities, to minimize or prevent any violation of this permit or to minimize or prevent any adverse impact of any permit violation.

e. Nothing in this permit shall be construed to preclude or negate the Permittee's responsibility to apply for, obtain, or comply with other Federal, State, or Local Government permits, certifications,or licenses or to preclude from obtaining other federal, state, or local approvals, including those applicable to other ADEM programs and regulations.

2. Removed Substances

Solids, sludges, filter backwash, or any other pollutant or other waste removed in the course of treatment or control of wastewaters shall be disposed of in a manner that complies with all applicable Department Rules.

3. Loss or Failure of Treatment Facilities

Upon the loss or failure of any treatment facilities, including but not limited to the loss or failure of the primary source of power of the treatment facility, the Permittee shall, where necessary to maintain compliance with the discharge limitations specified in Provision I. A. of this permit, or any other terms or conditions of this permit, cease, reduce, or otherwise control production and/or all discharges until treatment is restored. If control of discharge during loss or failure of the

primary source of power is to be accomplished by means of alternate power sources, standby generators, or retention of inadequately treated effluent, the Permittee must furnish to the Director within six months a certification that such control mechanisms have been installed.

4. Compliance With Statutes and Rules

   a. This permit has been issued under ADEM Administrative Code, Chapter 335-6-6. All provisions of this chapter, that are applicable to this permit, are hereby made a part of this permit. A copy of this chapter may be obtained for a small charge from the Office of General Counsel, Alabama Department of Environmental Management, 1400 Coliseum Boulevard Montgomery, Alabama 36110-2059.

   b. This permit does not authorize the noncompliance with or violation of any Laws of the State of Alabama or the United States of America or any regulations or rules implementing such laws. FWPCA, 33 U.S.C. Section 1319, and Code of Alabama 1975, Section 22-22-14.

E. PERMIT TRANSFER, MODIFICATION, SUSPENSION, REVOCATION, AND REISSUANCE

1. Duty to Reapply or Notify of Intent to Cease Discharge

   a. If the Permittee intends to continue to discharge beyond the expiration date of this permit, the Permittee shall file a complete permit application for reissuance of this permit at least 180 days prior to its expiration. If the Permittee does not intend to continue discharge beyond the expiration of this permit, the Permittee shall submit written notification of this intent which shall be signed by an individual meeting the signatory requirements for a permit application as set forth in ADEM Administrative Code Rule 335-6-6-.09.

   b. Failure of the Permittee to apply for reissuance at least 180 days prior to permit expiration will void the automatic continuation of the expiring permit provided by ADEM Administrative Code Rule 335-6-6-.06 and should the permit not be reissued for any reason any discharge after expiration of this permit will be an unpermitted discharge.

2. Change in Discharge

   Prior to any facility expansion, process modification or any significant change in the method of operation of the Permittee's treatment works, the Permittee shall provide the Director with information concerning the planned expansion, modification or change. The Permittee shall apply for a permit modification at least 180 days prior to any facility expansion, process modification, any significant change in the method of operation of the Permittee's treatment works or other actions that could result in the discharge of additional pollutants or increase the quantity of a discharged pollutant or could result in an additional discharge point. This condition applies to pollutants that are or that are not subject to discharge limitations in this permit. No new or increased discharge may begin until the Director has authorized it by issuance of a permit modification or a reissued permit.

3. Transfer of Permit

   This permit may not be transferred or the name of the Permittee changed without notice to the Director and subsequent modification or revocation and reissuance of the permit to identify the new Permittee and to incorporate any other changes as may be required under the FWPCA or AWPCA. In the case of a change in name, ownership or control of the Permittee's premises only, a request for permit modification in a format acceptable to the Director is required at least 30 days prior to the change. In the case of a change in name, ownership or control of the Permittee's premises accompanied by a change or proposed change in effluent characteristics, a complete permit application is required to be submitted to the Director at least 180 days prior to the change. Whenever the Director is notified of a change in name, ownership or control, he may decide not to modify the existing permit and require the submission of a new permit application.

4. Permit Modification and Revocation

   a. This permit may be modified or revoked and reissued, in whole or in part, during its term for cause, including but not limited to, the following:

      (1) If cause for termination under Provision II. E. 5. of this permit exists, the Director may choose to revoke and reissue this permit instead of terminating the permit;

      (2) If a request to transfer this permit has been received, the Director may decide to revoke and reissue or to modify the permit; or

      (3) If modification or revocation and reissuance is requested by the Permittee and cause exists, the Director may grant the request.

   b. This permit may be modified during its term for cause, including but not limited to, the following:

      (1) If cause for termination under Provision II. E. 5. of this permit exists, the Director may choose to modify this permit instead of terminating this permit;

(2) There are material and substantial alterations or additions to the facility or activity generating wastewater which occurred after permit issuance which justify the application of permit conditions that are different or absent in the existing permit;

(3) The Director has received new information that was not available at the time of permit issuance and that would have justified the application of different permit conditions at the time of issuance;

(4) A new or revised requirement(s) of any applicable standard or limitation is promulgated under Sections 301(b)(2)(C), (D), (E), and (F), and 307(a)(2) of the FWPCA;

(5) Errors in calculation of discharge limitations or typographical or clerical errors were made;

(6) To the extent allowed by ADEM Administrative Code, Rule 335-6-6-.17, when the standards or regulations on which the permit was based have been changed by promulgation of amended standards or regulations or by judicial decision after the permit was issued;

(7) To the extent allowed by ADEM Administrative Code, Rule 335-6-6-.17, permits may be modified to change compliance schedules;

(8) To agree with a granted variance under 30l(c), 30l(g), 30l(h), 30l(k), or 3l6(a) of the FWPCA or for fundamentally different factors;

(9) To incorporate an applicable 307(a) FWPCA toxic effluent standard or prohibition;

(10) When required by the reopener conditions in this permit;

(11) When required under 40 CFR 403.8(e) (compliance schedule for development of pretreatment program);

(12) Upon failure of the state to notify, as required by Section 402(b)(3) of the FWPCA, another state whose waters may be affected by a discharge permitted by this permit;

(13) When required to correct technical mistakes, such as errors in calculation, or mistaken interpretations of law made in determining permit conditions; or

(14) When requested by the Permittee and the Director determines that the modification has cause and will not result in a violation of federal or state law, regulations or rules.

5. Termination

This permit may be terminated during its term for cause, including but not limited to, the following:

a. Violation of any term or condition of this permit;

b. The Permittee's misrepresentation or failure to disclose fully all relevant facts in the permit application or during the permit issuance process or the Permittee's misrepresentation of any relevant facts at any time;

c. Materially false or inaccurate statements or information in the permit application or the permit;

d. A change in any condition that requires either a temporary or permanent reduction or elimination of the permitted discharge;

e. The Permittee's discharge threatens human life or welfare or the maintenance of water quality standards;

f. Permanent closure of the facility generating the wastewater permitted to be discharged by this permit or permanent cessation of wastewater discharge;

g. New or revised requirements of any applicable standard or limitation that is promulgated under Sections 301(b)(2)(C), (D), (E), and (F), and 307(a)(2) of the FWPCA that the Director determines cannot be complied with by the Permittee; or

h. Any other cause allowed by the ADEM Administrative Code, Chapter 335-6-6.

6. Suspension

This permit may be suspended during its term for noncompliance until the Permittee has taken action(s) necessary to achieve compliance.

7. Stay

The filing of a request by the Permittee for modification, suspension or revocation of this permit, in whole or in part, does not stay any permit term or condition.

F. COMPLIANCE WITH TOXIC POLLUTANT STANDARD OR PROHIBITION

If any applicable effluent standard or prohibition (including any schedule of compliance specified in such effluent standard or prohibition) is established under Section 307(a) of the FWPCA, 33 U.S.C. Section 1317(a), for a toxic pollutant discharged by the Permittee, and such standard or prohibition is more stringent than any discharge limitation on the pollutant specified in Provision I. A. of this permit or controls a pollutant not limited in Provision I. A. of this permit, this permit shall be modified to conform to the toxic pollutant effluent standard or prohibition, and the Permittee shall be notified of such modification. If this permit has not been modified to conform to the toxic pollutant effluent standard or prohibition before the effective date of such standard or prohibition, the Permittee shall attain compliance with the requirements of the standard or prohibition within the time period required by the standard or prohibition and shall continue to comply with the standard or prohibition until this permit is modified or reissued.

G. NOTICE TO DIRECTOR OF INDUSTRIAL USERS

1. The Permittee shall not allow the introduction of wastewater, other than domestic wastewater, from a new direct discharger prior to approval and permitting, if applicable, of the discharge by the Department.
2. The Permittee shall not allow an existing indirect discharger to increase the quantity or change the character of its wastewater, other than domestic wastewater, prior to approval and permitting, if applicable, of the increased discharge by the Department.
3. The Permittee shall report to the Department any adverse impact caused or believed to be caused by an indirect discharger on the treatment process, quality of discharged water, or quality of sludge. Such report shall be submitted within seven days of the Permittee becoming aware of the adverse impacts.

H. PROHIBITIONS

The Permittee shall not allow, and shall take effective enforcement action to prevent and terminate, the introduction of any of the following into its treatment works by industrial users:

1. Pollutants which create a fire or explosion hazard in the treatment works;
2. Pollutants which will cause corrosive structural damage to the treatment works, or dischargers with a pH lower than 5.0 s.u., unless the works are specifically designed to accommodate such discharges;
3. Solid or viscous pollutants in amounts which will cause obstruction of flow in sewers, or other interference with the treatment works;
4. Pollutants, including oxygen demanding pollutants, released in a discharge of such volume or strength as to cause interference in the treatment works;
5. Heat in amounts which will inhibit biological activity in the treatment plant resulting in interference or in such quantities that the temperature of the treatment plant influent exceeds 40°C (104° F) unless the treatment plant is designed to accommodate such heat; and
6. Pollutants in amounts which exceed any applicable pretreatment standard under Section 307 of FWPCA or any approved revisions thereof.

PART III ADDITIONAL REQUIREMENTS, CONDITIONS, AND LIMITATIONS

A. CIVIL AND CRIMINAL LIABILITY

1. Tampering

   Any person who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained or performed under the permit shall, upon conviction, be subject to penalties as provided by the AWPCA.

2. False Statements

   Any person who knowingly makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this permit, including monitoring reports or reports of compliance or noncompliance shall, upon conviction, be subject to penalties as provided by the AWPCA.

3. Permit Enforcement

   a. Any NPDES permit issued or reissued by the Department is a permit for the purpose of the AWPCA and the FWPCA, and as such, any terms, conditions, or limitations of the permit are enforceable under state and federal law.

   b. Any person required to have a NPDES permit pursuant to ADEM Administrative Code Chapter 335-6-6 and who discharges pollutants without said permit, who violates the conditions of said permit, who discharges pollutants in a manner not authorized by the permit, or who violates applicable orders of the Department or any applicable rule or standard of the Department, is subject to any one or combination of the following enforcement actions under applicable state statutes:

      (1) An administrative order requiring abatement, compliance, mitigation, cessation, clean-up, and/or penalties;

      (2) An action for damages;

      (3) An action for injunctive relief; or

      (4) An action for penalties.

   c. If the Permittee is not in compliance with the conditions of an expiring or expired permit the Director may choose to do any or all of the following provided the Permittee has made a timely and complete application for reissuance of the permit:

      (1) Initiate enforcement action based upon the permit which has been continued;

      (2) Issue a notice of intent to deny the permit reissuance. If the permit is denied, the owner or operator would then be required to cease the activities authorized by the continued permit or be subject to enforcement action for operating without a permit;

      (3) Reissue the new permit with appropriate conditions; or

      (4) Take other actions authorized by these rules and AWPCA.

4. Relief from Liability

   Except as provided in Provision II. C. 1. (Bypass) and Provision II. C. 2. (Upset), nothing in this permit shall be construed to relieve the Permittee of civil or criminal liability under the AWPCA or FWPCA for noncompliance with any term or condition of this permit.

B. OIL AND HAZARDOUS SUBSTANCE LIABILITY

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the Permittee from any responsibilities, liabilities or penalties to which the Permittee is or may be subject under Section 311 of the FWPCA, 33 U.S.C. Section 1321.

C. PROPERTY AND OTHER RIGHTS

This permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to persons or property or invasion of other private rights, or any infringement of federal, state, or local laws or regulations, nor does it authorize or approve the construction of any physical structures or facilities or the undertaking of any work in any waters of the state or of the United States.

D. AVAILABILITY OF REPORTS

Except for data determined to be confidential under Code of Alabama 1975, Section 22-22-9(c), all reports prepared in accordance with the terms of this permit shall be available for public inspection at the offices of the Department. Effluent data shall not be considered confidential.

E. EXPIRATION OF PERMITS FOR NEW OR INCREASED DISCHARGES

1. If this permit was issued for a new discharger or new source, this permit shall expire eighteen months after the issuance date if construction of the facility has not begun during the eighteen-month period.

2. If this permit was issued or modified to allow the discharge of increased quantities of pollutants to accommodate the modification of an existing facility and if construction of this modification has not begun during the eighteen month period after issuance of this permit or permit modification, this permit shall be modified to reduce the quantities of pollutants allowed to be discharged to those levels that would have been allowed if the modification of the facility had not been planned.

3. Construction has begun when the owner or operator has:

   a. Begun, or caused to begin as part of a continuous on-site construction program:

      (1) Any placement, assembly, or installation of facilities or equipment; or

      (2) Significant site preparation work including clearing, excavation, or removal of existing buildings, structures, or facilities which are necessary for the placement, assembly, or installation of new source facilities or equipment; or

   b. Entered into a binding contractual obligation for the purpose of placement, assembly, or installation of facilities or equipment which are intended to be used in its operation within a reasonable time. Options to purchase or contracts which can be terminated or modified without substantial loss, and contracts for feasibility, engineering, and design studies do not constitute a contractual obligation under this paragraph.

4. Final plans and specifications for a waste treatment facility at a new source or new discharger, or a modification to an existing waste treatment facility must be submitted to and examined by the Department prior to initiating construction of such treatment facility by the Permittee.

5. Upon completion of construction of waste treatment facilities and prior to operation of such facilities, the Permittee shall submit to the Department a certification from a registered professional engineer, licensed to practice in the State of Alabama, that the treatment facilities have been built according to plans and specifications submitted to and examined by the Department.

F. COMPLIANCE WITH WATER QUALITY STANDARDS

1. On the basis of the Permittee's application, plans, or other available information, the Department has determined that compliance with the terms and conditions of this permit should assure compliance with the applicable water quality standards.

2. Compliance with permit terms and conditions notwithstanding, if the Permittee's discharge(s) from point sources identified in Provision I. A. of this permit cause or contribute to a condition in contravention of state water quality standards, the Department may require abatement action to be taken by the Permittee in emergency situations or modify the permit pursuant to the Department's Rules, or both.

3. If the Department determines, on the basis of a notice provided pursuant to this permit or any investigation, inspection or sampling, that a modification of this permit is necessary to assure maintenance of water quality standards or compliance with other provisions of the AWPCA or FWPCA, the Department may require such modification, and, in cases of emergency, the Director may prohibit the discharge until the permit has been modified.

G. GROUNDWATER

Unless specifically authorized under this permit, this permit does not authorize the discharge of pollutants to groundwater. Should a threat of groundwater contamination occur, the Director may require groundwater monitoring to properly assess the degree of the problem, and the Director may require that the Permittee undertake measures to abate any such discharge and/or contamination.

H. DEFINITIONS

1. Average monthly discharge limitation – means the highest allowable average of "daily discharges" over a calendar month, calculated as the sum of all "daily discharges" measured during a calendar month divided by the number of "daily discharges" measured during that month (zero discharge days shall not be included in the number of "daily discharges" measured and a less than detectable test result shall be treated as a concentration of zero if the most sensitive EPA approved method was used).

2. Average weekly discharge limitation - means the highest allowable average of "daily discharges" over a calendar week, calculated as the sum of all "daily discharges" measured during a calendar week divided by the number of "daily discharges" measured during that week (zero discharge days shall not be included in the number of "daily discharges" measured and a less than detectable test result shall be treated as a concentration of zero if the most sensitive EPA approved method was used).

3. Arithmetic Mean – means the summation of the individual values of any set of values divided by the number of individual values.
4. AWPCA – means the Alabama Water Pollution Control Act.
5. BOD – means the five-day measure of the pollutant parameter biochemical oxygen demand.
6. Bypass – means the intentional diversion of waste streams from any portion of a treatment facility.
7. CBOD – means the five-day measure of the pollutant parameter carbonaceous biochemical oxygen demand.
8. Daily discharge – means the discharge of a pollutant measured during any consecutive 24-hour period in accordance with the sample type and analytical methodology specified by the discharge permit.
9. Daily maximum – means the highest value of any individual sample result obtained during a day.
10. Daily minimum – means the lowest value of any individual sample result obtained during a day.
11. Day – means any consecutive 24-hour period.
12. Department – means the Alabama Department of Environmental Management.
13. Director – means the Director of the Department.
14. Discharge – means "[t]he addition, introduction, leaking, spilling or emitting of any sewage, industrial waste, pollutant or other waste into waters of the state". Code of Alabama 1975, Section 22-22-1(b)(9).
15. Discharge Monitoring Report (DMR) – means the form approved by the Director to accomplish reporting requirements of an NPDES permit.
16. DO – means dissolved oxygen.
17. 8HC – means 8-hour composite sample, including any of the following:
    a. The mixing of at least 8 equal volume samples collected at constant time intervals of not more than 1 hour over a period of not less than 8 hours between the hours of 6:00 a.m. and 6:00 p.m. If the sampling period exceeds 8 hours, sampling may be conducted beyond the 6:00 a.m. to 6:00 p.m. period.
    b. A sample continuously collected at a constant rate over period of not less than 8 hours between the hours of 6:00 a.m. and 6:00 p.m. If the sampling period exceeds 8 hours, sampling may be conducted beyond the 6:00 a.m. to 6:00 p.m. period.
18. EPA – means the United States Environmental Protection Agency.
19. FC – means the pollutant parameter fecal coliform.
20. Flow – means the total volume of discharge in a 24-hour period.
21. FWPCA – means the Federal Water Pollution Control Act.
22. Geometric Mean – means the Nth root of the product of the individual values of any set of values where N is equal to the number of individual values. The geometric mean is equivalent to the antilog of the arithmetic mean of the logarithms of the individual values. For purposes of calculating the geometric mean, values of zero (0) shall be considered one (1).
23. Grab Sample – means a single influent or effluent portion which is not a composite sample. The sample(s) shall be collected at the period(s) most representative of the discharge.
24. Indirect Discharger – means a nondomestic discharger who discharges pollutants to a publicly owned treatment works or a privately owned treatment facility operated by another person.
25. Industrial User – means those industries identified in the Standard Industrial Classification manual, Bureau of the Budget 1967, as amended and supplemented, under the category "Division D – Manufacturing" and such other classes of significant waste producers as, by regulation, the Director deems appropriate.
26. MGD – means million gallons per day.
27. Monthly Average – means the arithmetic mean of all the composite or grab samples taken for the daily discharges collected in one month period. The monthly average for flow is the arithmetic mean of all flow measurements taken in a one month period.
28. New Discharger – means a person, owning or operating any building, structure, facility or installation:
    a. From which there is or may be a discharge of pollutants;
    b. From which the discharge of pollutants did not commence prior to August 13, 1979, and which is not a new source; and

c. Which has never received a final effective NPDES permit for dischargers at that site.

29. NH3-N – means the pollutant parameter ammonia, measured as nitrogen.

30. Notifiable sanitary sewer overflow – means an overflow, spill, release or diversion of wastewater from a sanitary sewer system that:

    a. Reaches a surface water of the State; or

    b. May imminently and substantially endanger human health based on potential for public exposure including but not limited to close proximity to public or private water supply wells or in areas where human contact would be likely to occur.

31. Permit application – means forms and additional information that is required by ADEM Administrative Code Rule 335-6-6-.08 and applicable permit fees.

32. Point source – means "any discernible, confined and discrete conveyance, including but not limited to any pipe, channel, ditch, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, or vessel or other floating craft, . . . from which pollutants are or may be discharged." Section 502(14) of the FWPCA, 33 U.S.C. Section 1362(14).

33. Pollutant – includes for purposes of this permit, but is not limited to, those pollutants specified in Code of Alabama 1975, Section 22-22-1(b)(3) and those effluent characteristics specified in Provision I. A. of this permit.

34. Privately Owned Treatment Works – means any devices or system which is used to treat wastes from any facility whose operator is not the operator of the treatment works, and which is not a "POTW".

35. Publicly Owned Treatment Works – means a wastewater collection and treatment facility owned by the State, municipality, regional entity composed of two or more municipalities, or another entity created by the State or local authority for the purpose of collecting and treating municipal wastewater.

36. Receiving Stream – means the "waters" receiving a "discharge" from a "point source".

37. Severe property damage – means substantial physical damage to property, damage to the treatment facilities which causes them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.

38. Significant Source – means a source which discharges 0.025 MGD or more to a POTW or greater than five percent of the treatment work's capacity, or a source which is a primary industry as defined by the U.S. EPA or which discharges a priority or toxic pollutant.

39. TKN – means the pollutant parameter Total Kjeldahl Nitrogen.

40. TON – means the pollutant parameter Total Organic Nitrogen.

41. TRC – means Total Residual Chlorine.

42. TSS – means the pollutant parameter Total Suspended Solids.

43. 24HC – means 24-hour composite sample, including any of the following:

    a. The mixing of at least 8 equal volume samples collected at constant time intervals of not more than 2 hours over a period of 24 hours;

    b. A sample collected over a consecutive 24-hour period using an automatic sampler composite to one sample. As a minimum, samples shall be collected hourly and each shall be no more than one twenty-fourth (1/24) of the total sample volume collected; or

    c. A sample collected over a consecutive 24-hour period using an automatic composite sampler composited proportional to flow.

44. Upset – means an exceptional incident in which there is an unintentional and temporary noncompliance with technology-based permit discharge limitations because of factors beyond the reasonable control of the Permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.

45. Waters – means "[a]ll waters of any river, stream, watercourse, pond, lake, coastal, ground, or surface water, wholly or partially within the state, natural or artificial. This does not include waters which are entirely confined and retained completely upon the property of a single individual, partnership, or corporation unless such waters are used in interstate commerce." Code of Alabama 1975, Section 22-22-1(b)(2). Waters "include all navigable waters" as defined in Section 502(7) of the FWPCA, 22 U.S.C. Section 1362(7), which are within the State of Alabama.

46. Week – means the period beginning at twelve midnight Saturday and ending at twelve midnight the following Saturday.

47. Weekly (7-day and calendar week) Average – is the arithmetic mean of all samples collected during a consecutive 7-day period or calendar week, whichever is applicable. The calendar week is defined as beginning on Sunday and ending on Saturday. Weekly averages shall be calculated for all calendar weeks with Saturdays in the month. If a calendar week overlaps two months (i.e., the Sunday is in one month and the Saturday in the following month), the weekly average calculated for the calendar week shall be included in the data for the month that contains the Saturday.

I. SEVERABILITY

The provisions of this permit are severable, and if any provision of this permit or the application of any provision of this permit to any circumstance is held invalid, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected thereby.

PART IV SPECIFIC REQUIREMENTS, CONDITIONS, AND LIMITATIONS

A. SLUDGE MANAGEMENT PRACTICES

1. Applicability

   a. Provisions of Provision IV.A. apply to a sewage sludge generated or treated in treatment works that is applied to agricultural and non-agricultural land, or that is otherwise distributed, marketed, incinerated, or disposed in landfills or surface disposal sites.

   b. Provisions of Provision IV.A. do not apply to:

      (1) Sewage sludge generated or treated in a privately owned treatment works operated in conjunction with industrial manufacturing and processing facilities and which receive no domestic wastewater.

      (2) Sewage sludge that is stored in surface impoundments located at the treatment works prior to ultimate disposal.

2. Submitting Information

   a. If applicable, the Permittee must submit annually with its Municipal Water Pollution Prevention (MWPP) report the following:

      (1) Type of sludge stabilization/digestion method;

      (2) Daily or annual sludge production (dry weight basis);

      (3) Ultimate sludge disposal practice(s).

   b. The Permittee shall provide sludge inventory data to the Director as requested. These data may include, but are not limited to, sludge quantity and quality reported in Provision IV.A.2.a as well as other specific analyses required to comply with State and Federal laws regarding solid and hazardous waste disposal.

   c. The Permittee shall give prior notice to the Director of at least 30 days of any change planned in the Permittee's sludge disposal practices.

3. Reopener or Modification

   a. Upon review of information provided by the Permittee as required by Provision IV.A.2. or, based on the results of an on-site inspection, the permit shall be subject to modification to incorporate appropriate requirements.

   b. If an applicable "acceptable management practice" or if a numerical limitation for a pollutant in sewage sludge promulgated under Section 405 of FWPCA is more stringent than the sludge pollutant limit or acceptable management practice in this permit. This permit shall be modified or revoked or reissued to conform to requirements promulgated under Section 405. The Permittee shall comply with the limitations no later than the compliance deadline specified in applicable regulations as required by Section 405 of FWPCA.

B. EFFLUENT TOXICITY LIMITATIONS AND BIOMONITORING REQUIREMENTS FOR CHRONIC TOXICITY

1. Chronic Toxicity Test

   a. The permittee shall perform short-term chronic toxicity tests on the wastewater at Outfall 0011.

   b. The samples shall be diluted using appropriate control water to the Instream Waste Concentration (IWC) which is **81 percent** effluent. The IWC is the actual concentration of effluent, after mixing, in the receiving stream during a 7-day, 10-year low flow period.

   c. Any test result that shows a statistically significant reduction in survival, growth, or reproduction between the control and test samples at the 95% confidence level indicates chronic toxicity and shall constitute noncompliance with this permit.

2. General Test Requirements

   a. A minimum of three (3) 24-hour composite samples shall be obtained for use in the above biomonitoring tests. Samples shall be collected every other day so that the laboratory receives water samples on the first, third, and fifth day of the seven-day test period. The holding time for each composite sample shall not exceed 36 hours. The control water shall be a water prepared in the laboratory in accordance with the EPA procedure described in EPA 821-R-02-013 (most current edition) or another control water selected by the Permittee and approved by the Department.

   b. Test results shall be deemed unacceptable and the Permittee shall rerun the tests as soon as practical within the monitoring period for the following:

      (1) For testing with P. promelas:, effluent toxicity tests with control survival of less than 80% or if dry weight per surviving control organism is less than 0.25 mg;

(2) For testing with C. dubia:, if the number of young per surviving control organism is less than 15 or if less than 60% of surviving control females produce three broods; or

(3) If the other requirements of the EPA Test Procedure are not met.

c. In the event of an invalid test, upon subsequent completion of a valid test, the results of all tests, valid and invalid, are to be reported to the Department along with an explanation of the tests performed and the test results.

d. Toxicity tests shall be conducted for the duration of this permit in the month of **November**. Should results from the Annual Toxicity test indicate that Outfall 001-1 exhibits chronic toxicity, then the Permittee must conduct the follow-up testing described in Part IV.B.4.a. In addition, the Permittee may then also be required to conduct toxicity testing in the months of FEBRUARY, MAY, AUGUST, and NOVEMBER.

3. Reporting Requirements

a. The Permittee shall notify the Department in writing within 48 hours after toxicity has been demonstrated by the scheduled test(s).

b. Biomonitoring test results obtained during each monitoring period shall be summarized and reported using the appropriate Discharge Monitoring Report (DMR) form approved by the Department. In accordance with Section 2 of this part, an effluent toxicity report containing the information in Sections 2 and 6 shall be included with the DMR. Two copies of the test results must be submitted to the Department no later than 28 days after the month that tests were performed.

4. Additional Testing Requirements

a. If chronic toxicity is indicated (i.e., noncompliance with permit limit), then the Permittee must perform two additional valid chronic toxicity tests in accordance with these procedures to determine the extent and duration of the toxic condition. The toxicity tests shall run consecutively beginning on the first calendar week following the date that the Permittee became aware of the permit noncompliance. The results of these follow-up tests shall be submitted to the Department no later than 28 days following the month the tests were performed.

b. After evaluation of the results of the follow-up tests, the Department will determine if additional action is appropriate and may require additional testing and/or toxicity reduction measures. The permittee may be required to perform a Toxicity Identification Evaluation (TIE) and/or a Toxicity Reduction Evaluation (TRE). The TIE/TRE shall be performed in accordance with the most recent protocols and guidance outlined by EPA (e.g., EPA/600/2-88/062, EPA/600/R-92/080, EPA/600/R-91-003, EPA/600/R-92/081, EPA/833/B-99/022, and/or EPA/600/6-91/005F)

5. Test Methods

The tests shall be performed in accordance with the latest edition of the "EPA Short-Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms." The Larval Survival and Growth Test, Method 1000.0, shall be used for the fathead minnow (Pimephales promelas) test and the Survival and Reproduction Test, Method 1002.0, shall be used for the cladoceran (Ceriodaphnia dubia) test.

6. Effluent Toxicity Testing Reports

The following information shall be submitted with each DMR unless otherwise directed by the Department. The Department may at any times suspend or reinstate this requirement or may decrease or increase the frequency of submittals.

a. Introduction

(1) Facility name, location and county
(2) Permit number
(3) Toxicity testing requirements of permit
(4) Name of receiving water body
(5) Contract laboratory information (if tests are performed under contract)
  (a) Name of firm
  (b) Telephone number
  (c) Address
(6) Objective of test

b. Plant Operations

(1) Discharge Operating schedule (if other than continuous)
(2) Volume of discharge during sample collection to include Mean daily discharge on sample collection dates (MGD, CFS, GPM)
(3) Design flow of treatment facility at time of sampling

c. Source of Effluent and Dilution Water

(1) Effluent samples

(a) Sampling point
(b) Sample collection dates and times (to include composite sample start and finish times)
(c) Sample collection method
(d) Physical and chemical data of undiluted effluent samples (water temperature, pH, alkalinity, hardness, specific conductance, total residual chlorine (if applicable), etc.)
(e) Lapsed time from sample collection to delivery
(f) Lapsed time from sample collection to test initiation
(g) Sample temperature when received at the laboratory

(2) Dilution Water

(a) Source
(b) Collection/preparation date(s) and time(s)
(c) Pretreatment (if applicable)
(d) Physical and chemical characteristics (water temperature, pH, alkalinity, hardness, specific conductance, etc.)

d. Test Conditions

(1) Toxicity test method utilized
(2) End point(s) of test
(3) Deviations from referenced method, if any, and reason(s)
(4) Date and time test started
(5) Date and time test terminated
(6) Type and volume of test chambers
(7) Volume of solution per chamber
(8) Number of organisms per test chamber
(9) Number of replicate test chambers per treatment
(10) Test temperature, pH, and dissolved oxygen as recommended by the method (to include ranges)
(11) Specify if aeration was needed
(12) Feeding frequency, amount, and type of food
(13) Specify if (and how) pH control measures were implemented
(14) Light intensity (mean)

e. Test Organisms

(1) Scientific name
(2) Life stage and age
(3) Source
(4) Disease(s) treatment (if applicable)

f. Quality Assurance

(1) Reference toxicant utilized and source
(2) Date and time of most recent chronic reference toxicant test(s), raw data, and current control chart(s). (The most recent chronic reference toxicant test shall be conducted within 30 days of the routine.)
(3) Dilution water utilized in reference toxicant test
(4) Results of reference toxicant test(s) (NOEC, IC25, etc.); report concentration-response relationship and evaluate test sensitivity
(5) Physical and chemical methods utilized

g. Results

(1) Provide raw toxicity data in tabular form, including daily records of affected organisms in each concentration (including controls) and replicate
(2) Provide table of endpoints: NOECs, IC25s, PASS/FAIL, etc. (as required in the applicable NPDES permit)
(3) Indicate statistical methods used to calculate endpoints
(4) Provide all physical and chemical data required by method
(5) Results of test(s) (NOEC, IC25, PASS/FAIL, etc.), report concentration-response relationship (definitive test only), report percent minimum significant difference (PMSD) calculated for sublethal endpoints determined by hypothesis testing.

h. Conclusions and Recommendations

(1) Relationship between test endpoints and permit limits

(2) Actions to be taken

1/ Adapted from "Short-Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms", Fourth Edition, October 2002 (EPA 821-R-02-013), Section 10, Report Preparation.

C. TOTAL RESIDUAL CHLORINE (TRC) REQUIREMENTS

1. If chlorine is not utilized for disinfection purposes, TRC monitoring under Part I of this Permit is not required. If TRC monitoring is not required (conditional monitoring), "*9" or "NODI = 9" (if hard copy) should be reported on the DMR forms.

2. Testing for TRC shall be conducted according to either the amperometric titration method or the DPD colorimetric method as specified in Section 408(C) or (E), Standards Methods for the Examination of Water and Wastewater, 18th edition. If chlorine is not detected prior to actual discharge to the receiving stream using one of these methods (i.e., the analytical result is less than the detection level), the Permittee shall report on the DMR form "*B", "NODI = B" (if hard copy), or "0". The Permittee shall then be considered to be in compliance with the daily maximum concentration limit for TRC.

3. This permit contains a maximum allowable TRC level in the effluent. The Permittee is responsible for determining the minimum TRC level needed in the chlorine contact chamber to comply with E.coli limits. The effluent shall be dechlorinated if necessary to meet the maximum allowable effluent TRC level.

4. The sample collection point for effluent TRC shall be at a point downstream of the chlorine contact chamber (downstream of dechlorination if applicable). The exact location is to be approved by the Director.

D. PLANT CLASSIFICATION

The Permittee shall report to the Director within 30 days of the effective date of this permit, the name, address and operator number of the certified wastewater operator in responsible charge of the facility. Unless specified elsewhere in this permit, this facility shall be classified in accordance with ADEM Admin. Code R. 335-10-1-.03.

E. POLLUTANT SCANS

The Permittee shall sample and analyze for the pollutants listed in 40 CFR 122 Appendix J Table 2. The Permittee shall provide data from a minimum of three samples collected within the four and one half years prior to submitting a permit application. Samples must be representative of the seasonal variation in the discharge from each outfall.

F. STORM WATER REQUIREMENTS

1. Prohibitions

   a. The Permittee shall not allow the discharge of non-storm water into permitted storm water outfall(s) unless said discharge is already subject to an NPDES permit.

   b. Pollutants removed in the course of treatment or control shall be disposed in a manner that complies with all applicable Department rules and regulations.

2. Operational and Management Practices

   The permittee shall prepare and implement a Storm Water Pollution Prevention (SWPP) Plan within one year of the effective date of this permit.

   a. In the SWPP Plan, the Permittee shall:

      (1) Assess the treatment plant site by developing and presenting site drainage maps, materials inventory, and best management operational practices. The plan shall also include a description of all spill or leak sources;

      (2) Describe mechanisms and procedures to prevent the contact of sewage sludge, screenings, raw or partially treated wastewater, or any other waste product or pollutant with storm water discharged from the facility;

      (3) Provide for daily inspection on workdays of any structures that function to prevent storm water pollution or that remove pollutants from storm water;

      (4) Provide for daily inspection of the facility in general to ensure that the SWPP Plan is continually implemented and effective;

      (5) Include a Best Management Practices (BMP) Plan that, as a minimum, addresses housekeeping, preventative maintenance, spill prevention and response, and non-storm water discharges;

      (6) Describe mechanisms and procedures to provide sediment control sufficient to prevent or control storm water pollution storm water by particles resulting from soil or sediment migration from the site due to significant clearing, grading, or excavation activities;

(7) Designate by position or name the person or persons responsible for the day to day implementation of the SWPP Plan; and

(8) Bear the signature of an individual meeting signatory requirements as defined in ADEM Administrative Code, Rule 335-6-6-.09.

b. The Director or his designee may notify the permittee at any time that the SWPP Plan is deficient and will require correction of the deficiency. The permittee shall correct any SWPP Plan deficiency identified by the Director or his designee within 30 days of receipt of notification and shall certify to the Department that the correction has been made and implemented.

c. Administrative Procedures

(1) A copy of the SWPP Plan shall be maintained at the facility and shall be available for inspection by the Department.

(2) A log of daily inspections required by Provision IV.F.2.a.(3.) of the permit shall be maintained at the facility and shall be made available for inspection by the Department upon request. The log shall contain records of all inspections performed and each daily entry shall be signed by the person performing the inspection.

(3) The Permittee shall provide training for any personnel required to implement the SWPP Plan and shall retain documentation of such training at the facility. Training records for all personnel shall be available for inspection by the Department. Training shall be performed prior to the date implementation is required.

3. Monitoring Requirements

a. Storm water discharged through each storm water outfall shall be sampled once per calendar year, using first flush grab samples (FFGS) collected during the first 30 minutes of discharge.

b. The total volume of storm water discharged for the event must be monitored, including the date and duration (in hours) and rainfall (in inches) for the storm event(s) sampled. The duration between the storm event sampled and the end of the previous measurable (greater than 0.1 inch rainfall) storm event must be a minimum of 72 hours. This information must be recorded as part of the sampling procedure and records retained in accordance with Provision I.B.5. of this permit. The volume may be measured using flow measurement devices or may be estimated using any method approved in writing by the Department.

G. SANITARY SEWER OVERFLOW RESPONSE PLAN

1. SSO Response Plan

Within 120 days of the effective date of this Permit, the Permittee shall develop a Sanitary Sewer Overflow (SSO) Response Plan to establish timely and effective methods for responding to notifiable sanitary sewer overflows. The SSO Response Plan shall address each of the following:

a. General Information:

(1) Approximate population of City/Town, if applicable

(2) Approximate number of customers served by the Permittee

(3) Identification of any subbasins designated by the Permittee, if applicable

(4) Identification of estimated linear feet of sanitary sewers

(5) Number of Pump/Lift Stations in the collection system

b. Responsibility Information:

(1) The title(s) and contact information of key position(s) who will coordinate the SSO response, including information for a backup coordinator in the event that the primary SSO coordinator is unavailable. The SSO coordinator is the person responsible for assessing the SSO and initiating a series of response actions based on the type, severity, and destination of the SSO, except for routine SSOs for which the coordinator may pre-approve written procedures. Routine SSOs are those for which the corrective action procedures are generally consistent.

(2) The title(s), and contact information of key position(s) who will respond to SSOs, including information for backup responder(s) in the event the primary responder(s) are unavailable (i.e., position(s) who provide notification to the Department, the public, the county health department, and other affected entities such as

public water systems; position(s) responsible for organizing crews for response; position(s) responsible for addressing public inquiries)

c. SSO and Surface Water Assessment

(1) Identification of locations within the collection system at which an SSO is likely to occur (e.g., based upon historical SSOs, lift stations where electricity may be lost, etc.)

(2) A map of the general collection system area, including identification of surface waterbodies and the location(s) of public drinking water source(s). Mapping of all collection system piping, pump stations, etc. is not required; however, if this information is already available, it should be included.

(3) Identification of surface waterbodies within the collection system area which are classified as Swimming according to ADEM Admin. Code chap. 335-6-11. References available to assist in this requirement include: http://www.adem.state.al.us/alEnviroRegLaws/files/Division6Vol1.pdf and http://gis.adem.alabama.gov/ADEM_Dash/use_class/index.html

(4) Identification of surface waterbodies within the collection system area which are not classified as Swimming as indicated in paragraph c above, but are known locally as areas where swimming occurs or as areas that are heavily recreated

d. Public Reporting of SSOs

(1) Contact information for the public to report an SSO to the Permittee, during both normal and outside of normal business hours (e.g., telephone number, website, email address, etc.)

(2) Information requested from the person reporting an SSO to assist the Permittee in identifying the SSO (e.g., date, time, location, contact information)

(3) Procedures for communication of the SSO report to the appropriate positions for follow-up investigation and response, if necessary

e. Procedures to immediately notify the Department, the county health department, and other affected entities (such as public water systems) upon becoming aware of notifiable SSOs

f. Public Notification Methods for SSOs

(1) A listing of methods that are feasible, as determined by the Permittee, for public notifications (e.g., flyers distributed to nearby residents; signs posted at the location of the SSO, where the SSO enters a water of the state, and/or at a central public location; signs posted at fishing piers, boat launches, parks, swimming waterbodies, etc.; website and/or social media notifications; local print or radio and broadcast media notifications; "opt in" email, text message, or automated phone message notifications)

(a) If signage is a feasible method for public notification, procedures for use and removal of signage (e.g., availability and maintenance of signs, appropriate duration of postings)

(2) Minimum information to be included in public notifications (e.g., identification that an SSO has occurred, date, duration if known, estimated volume if known, location of the SSO by street address or other appropriate method, initial destination of the SSO)

(3) Procedures developed by the Permittee for determining the appropriate public notification method(s) based upon the potential for public exposure to health risks associated with the SSO

g. Standard Procedures shall be developed by the Permittee and shall include, at a minimum:

(1) General SSO Response Procedures (e.g., procedures for dispatching staff to assess/correct an SSO; procedures for routine SSO corrective actions such as those for sewer blockages, overflowing manholes, line breakages, pump station power failure, etc.; procedures for disinfection of affected area, if applicable);

(2) Procedures for collection and proper disposal of the SSO, if feasible.

(3) General procedures for coordinating instream water quality monitoring, including, but not limited to, procedures for mobilizing staff, collecting samples, and typical test methods should the Department or the Permittee

determine monitoring is appropriate following an SSO. Identification of a contractor who will collect and analyze the sample(s) may be listed in lieu of the procedures.

(4) References to other documents (such as Standard Operating Procedures for SSO Responses) may be acceptable for this section; however, the referenced document shall be identified and shall be reviewed at a frequency of at least that required by the Administrative Procedures Section.

h. Date of the SSO Response Plan, dates of all modifications and/or reviews, the title and signature of the reviewer(s) for each date and the signature of the responsible official or the appropriate designee.

2. SSO Response Plan Implementation

Except as otherwise required by this Permit, the Permittee shall fully implement the SSO Response Plan as soon as practicable, but no later than 180 days after the effective date of this Permit.

3. Department Review of the SSO Response Plan

a. When requested by the Director or his designee, the Permittee shall make the SSO Response Plan available for review by the Department.

b. Upon review, the Director or his designee may notify the Permittee that the SSO Response Plan is deficient and require modification of the Plan.

c. Within thirty days of receipt of notification, or an alternate timeframe as approved by the Department, the Permittee shall modify any SSO Response Plan deficiency identified by the Director or his designee and shall certify to the Department that the modification has been made.

4. SSO Response Plan Administrative Procedures

a. The Permittee shall maintain a copy of the SSO Response Plan at the permitted facility or an alternate location approved by the Department in writing and shall make it available for inspection by the Department.

b. The Permittee shall make a copy of the SSO Response Plan available to the public upon written request within 30 days of such request. The Permittee may redact information which may present security issues, such as location of public water supplies, identification of specific details of vulnerabilities, employee information, etc.

c. The Permittee shall provide training for any personnel required to implement the SSO Response Plan and shall retain at the facility documentation of such training. This documentation shall be available for inspection by the Department. Training shall be provided for existing personnel prior to the date by which implementation of the SSO Response Plan is required and for new personnel as soon as possible. Should significant revisions be made to the SSO Response Plan, training regarding the revisions shall be conducted as soon as possible.

d. The Permittee shall complete a review and evaluation of the SSO Response Plan at least once every three years. Documentation of the SSO Response Plan review and evaluation shall be signed and dated by the responsible official or the appropriate designee as part of the SSO Response Plan.

ALABAMA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT (ADEM)
NPDES/SID NON-COMPLIANCE NOTIFICATION FORM

Instructions: This form should be used to notify the Department of non-compliance with permit requirements in accordance with ADEM Admin. Code r. 335-6-6-.12(1)6.(iii) [NPDES permits] or 335-6-5-.15(12)(f)2. (SID permits) and should be submitted with the Discharge Monitoring Reports (DMR) for the respective monitoring period. A new form should be used for each monitoring period.

Permittee Name: _____ **Permit No:** _____

Facility Name: _____ **County:** _____

DMR Monitoring Period: _____

1. **Description of non-compliance associated with an outfall(s)** (attach additional pages if necessary):

Effluent Violations (if applicable)			
Outfall Number(s)	**Noncompliant Parameters(s)**	**Result Reported (include units)**	**Permit Limit (include units)**
Monitoring / Reporting Violations (if applicable)			
Outfall Number(s)	**Noncompliant Parameter(s)**	**Description of Monitoring / Reporting Violation**	

2. **Description of non-compliance that is <u>not</u> associated with an outfall** (i.e. not suitable to be reported in Item 1.):

3. **Cause of non-compliance** (attach additional pages if necessary):

4. **Period of noncompliance** [include exact date(s) and time(s) or, if not corrected, the anticipated duration of the noncompliance]:

5. **Description of steps taken and/or being taken to reduce or eliminate the noncomplying discharge and to prevent its recurrence** (attach additional pages if necessary):

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

Responsible Official Signature	Date Signed	Responsible Official Printed Name and Title

NPDES PERMIT RATIONALE

NPDES Permit No: **AL0041653** Date: March 8, 2018

Permit Applicant: City of Hoover
100 Municipal Drive
Hoover, Alabama 35216

Location: Riverchase WWTP
2004 Parkway River Road
Hoover, Alabama 35244

Draft Permit is: Initial Issuance:
Reissuance due to expiration: **X**
Modification of existing permit:
Revocation and Reissuance:

Basis for Limitations: Water Quality Model: **DO, $CBOD_5$, NH_3-N, TKN**
Reissuance with no modification: **DO, $CBOD_5$, NH_3-N, TKN, pH, TSS, TSS % Removal, $CBOD_5$ % Removal**
Instream calculation at 7Q10: **81%**
Toxicity based: **TRC**
Secondary Treatment Levels: **TSS, TSS % Removal, $CBOD_5$ % Removal**
Other (described below): **pH, E. Coli, TP, Cu, B2EP**

Design Flow in Million Gallons per Day: 3 MGD

Major: Yes

Description of Discharge: Outfall Number 0011: Effluent discharge to Cahaba River, which is classified as Fish & Wildlife.

Storm Water Outfall Numbers 002S, 003S, and 004S: Storm water run-off to Cahaba River, which is classified as Fish & Wildlife.

Discussion:

This is a permit reissuance due to expiration. The Department's Water Quality Branch (WQB) has indicated that a 7Q10 of 1.12 cfs shall be used in this permit reissuance. The discharge limits for Dissolved Oxygen (DO), five-day Carbonaceous Biochemical Oxygen Demand ($CBOD_5$), Total Kjeldahl Nitrogen (TKN), and Total Ammonia – Nitrogen (NH_3-N) were developed by the Municipal Section based on a WLA prepared by ADEM's WQB on March 3, 2010. The monthly average summer (May – November) limits are: $CBOD_5$ = 4.0 mg/l, TKN = 2 .0 mg/l and NH_3-N = 1.0 mg/l. The monthly average winter (December – April) limits are: $CBOD_5$ = 10.0 mg/l, TKN = 4.0 mg/l and NH_3-N = 2.0 mg/l. The daily minimum DO limit is 6.0 mg/l for the summer and 5.0 mg/l for the winter.

This discharge is included as a point source in the Cahaba River Watershed Nutrient TMDL, which was approved by EPA in October 2006. The TMDL states that major dischargers must attain a growing season (April – October) Total Phosphorus (TP) limit of 0.043 mg/l. The Permittee was required to

achieve compliance with this TP limit in accordance with the compliance schedule previously provided to the Department. The schedule required compliance with a growing season monthly average TP limit of 0.4 mg/l through March 31, 2015, 0.2 mg/l by April 1, 2015 and compliance with the final growing season monthly average TP limit of 0.043 mg/l effective April 1, 2022. The Permittee has since requested that the final effective date of the 0.043 mg/l limit be extended by a length equal to a permit cycle to April 1, 2027.

The permit has a current growing season monthly average limitation of 0.2 mg/l in effect until the final effective date of the 0.043 mg/l limit.

Currently, the Riverchase WWTP uses AquaDisk filters along with the addition of alum for phosphorus removal to achieve the Phase II TP limit of 0.2 mg/l. Additional treatment processes will be required to achieve the future permit discharge limit of 0.043 mg/l for TP at the Riverchase WWTP. The City of Hoover has looked at two different treatment processes. The first is the Parkson Dynasand Two-Stage Filter which uses a sand filtration system and was pilot studied at the Southwest Water Riverview WWTP. The second was the Clearas Water Recovery System which uses an activated algae component and was pilot studied at the Riverchase WWTP. The City of Hoover has indicated the results from these studies were encouraging; however, the concern with either of these systems is that, with just the slightest issue within the treatment process, the plant could easily violate the strict 0.043 mg/l TP limit. Also, a pilot study is just a snapshot into the overall treatment system within a very controlled environment. The cost estimates received on both of these systems are very preliminary at this time. Keeping that in mind, equipment and construction costs for the Dynasand system would be $3-5 M and for the Clearas system would be $5-7 M.

Section 6.3 (Adaptive Management) of the Cahaba River Nutrient TMDL states the following:

> It is possible during the implementation of this TMDL that further evaluation of instream conditions in the Cahaba River, including biological and chemical monitoring, will reveal trends of improvement in water quality and biological conditions. If so, any required implementation in the future may be revised according to the best available science at that time.
>
> The Department has a program to systematically collect additional nutrient data at the ecoregional reference sites used to develop the Cahaba TMDL nutrient target, in addition to other reference sites and candidate reference sites throughout Alabama. Adaptive management, in conjunction with the implementation schedule as determined by ADEM's NPDES permitting program, will allow the TMDL target to be validated or adjusted as necessary based on additional data that becomes available in the future.

The Department's 2016 water quality monitoring plan for the Cahaba River included the following: sampling fish in May; performing a periphyton study in September; macroinvertebrate sampling in October; diurnal studies in both June and September. The Department is currently in the process of compiling and analyzing the data that is available at this time.

As indicated in ADEM Admin. Code r. 335-6-6-.16(a)(2), the Department has the authority to establish a compliance schedule within the timeframe determined by the Director for implementation of an applicable TMDL. Based upon the facts presented to the Department as discussed above, the final compliance deadline for the TMDL limit of 0.043 mg/L has been modified in the permit to April 1, 2027.

The pH limits were developed in accordance with the water-use classification of the receiving stream. The daily minimum and daily maximum pH limits are 6.0 S.U. and 8.5 S.U., respectively. The monthly average and daily maximum TRC limits of 0.014 mg/l and 0.024 mg/l, respectively, are based on the

United States Environmental Protection Agency's (EPA's) recommended water quality values and on the current Toxicity Rationale, which considers available dilution in the receiving stream. The previous permit imposed monthly average and daily maximum limits of 0.013 mg/l and 0.022 mg/l. The increased limitation is not backsliding since the increase would result in water quality standards being attained and the revision is consistent with the Department's antidegradation policy. In accordance with a letter dated August 11, 1998 from EPA Headquarters and a 1991 memorandum from EPA Region 4's Environmental Services Division (ESD), due to testing and method detection limitations, a Total Residual Chlorine measurement below 0.05 mg/l shall be considered below detection for compliance purposes.

The Department recently revised bacteriological criteria in ADEM Administrative Code R.335-6-10-.09. As a result, this permit includes E. coli limits and seasons that are consistent with the revised regulations. The imposed E. coli limits were determined based on the water-use classification of the receiving stream. The segment of the Cahaba River in which the facility discharges is classified as Fish & Wildlife. The Fish & Wildlife E. coli limits for May – October are 126 col/100ml (monthly average) and 298 col/100ml (daily maximum), while the limits for November – April are 548 col/100ml (monthly average) and 2507 col/100ml (daily maximum).

The monthly average Total Suspended Solids (TSS), TSS percent removal, and $CBOD_5$ percent removal limits of 30 mg/l, 85%, and 85%, respectively, are based on the requirements of 40 CFR part 133.102 regarding Secondary Treatment.

The Permittee is also required to monitor and report effluent test results for Nitrite plus Nitrate-Nitrogen (NO_2+NO_3-N). Monitoring for this nutrient-related parameter is imposed so that sufficient information will be available regarding the nutrient contribution from this point source, should it be necessary at some later time to impose additional nutrient limits on this discharge.

Chronic toxicity testing with two species (Ceriodaphnia and Pimephales) is being imposed in this permit. Toxicity testing is imposed for both survival and life-cycle impairment (i.e. growth and reproduction). Chronic testing at the IWC of 81 percent is required once per year during the month of November. The previous permit imposed an IWC of 87 percent. The decreased in IWC is not backsliding since the increase would result in water quality standards being attained and the revision is consistent with the Department's antidegradation policy

The Department completed a reasonable potential analysis (RPA) of the discharge based on laboratory data provided in the Permittee's application and upstream background data from station C-2. The RPA indicates whether pollutants in treated effluent have the potential to contribute to excursions of Alabama's in-stream water quality standards. The RPA indicates that there may be reasonable potential for Arsenic, Copper, and Bis (2-Ethylhexl) Phthalate (B2EP). However, this discharge does not appear to contain arsenic based on the data submitted in the Permittee's application as all data was below detection limits and the RPA was based upon the background levels (i.e. the discharge would not cause or contribute to violations of water quality standards. The Department is imposing monthly monitoring for Total Recoverable Copper to gather additional data to determine if reasonable potential truly exists since not all of the sample results were above detectible limits. The Department is imposing a monthly average limit of 16.7 µg/l for B2EP.

The frequency of monitoring for most parameters is three times per week. NO_2+NO_3-N, Copper, and B2EP are to be monitored monthly. Flow is to be monitored continuously. $CBOD_5$ and TSS percent removals are to be calculated monthly.

In the permit application, the Permittee reported three storm water outfalls (002S, 003S, and 004S) from the treatment plant. Storm water monitoring at these outfalls will be required on an annual basis.

The segment of the Cahaba River in which the facility discharges is within a 24-hr travel time to an Outstanding Alabama Water (OAW) stream designation which is located 13.61 miles downstream of the discharge location. The toxicity and bacteria limitations included in this permit renewal are protective of the Fish & Wildlife designation and should be protective of the OAW designation as well.

The segment of the Cahaba River in which the facility discharges is not listed on the 2016 303(d) list. The imposed TP limits are consistent with the Cahaba River Watershed Nutrient TMDL and the E. coli limits are consistent with the Cahaba River Watershed Pathogens (E. coli) TMDL, which was approved in August 2013. The pathogen limits imposed in the permit are consistent with Alabama's water quality standards and this discharge should not contribute to the pathogen impairment in the Cahaba River. The Cahaba River also has a TMDL for Siltation and Habitat Alteration which was approved in August 2013. The TMDL indicates that TSS associated with WWTPs is typically comprised primarily of organic matter and is not considered to be significantly impacting the Cahaba River with respect to sediment impairment and was not included in the WLA of the TMDL.

ADEM Administrative Rule 335-6-10-.12 requires applicants for new or expanded discharges to Tier II waters demonstrate that the proposed discharge is necessary for important economic or social development in the area in which the waters are located. The application submitted by the facility is not for a new or expanded discharge to Tier II waters, so the applicant is not required to demonstrate that the discharge is necessary for economic and social development.

Prepared by: Nicholas Caraway

LANCE R. LEFLEUR
DIRECTOR

KAY IVEY
GOVERNOR

Alabama Department of Environmental Management
adem.alabama.gov
1400 Coliseum Blvd. 36110-2400 ▪ Post Office Box 301463
Montgomery, Alabama 36130-1463
(334) 271-7700 ▪ FAX (334) 271-7950

FACT SHEET

APPLICATION FOR NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT TO DISCHARGE POLLUTANTS TO WATERS OF THE STATE OF ALABAMA

Date: March 9, 2018 **Prepared By:** Nicholas Caraway

NPDES Permit No. AL0041653

1. **Name and Address of Applicant:**

   City of Hoover
   100 Municipal Drive
   Hoover, AL 35216

2. **Name and Address of Facility:**

   Riverchase WWTP
   2004 Parkway River Road
   Hoover, Alabama 35244

3. **Description of Applicant's Type of Facility and/or Activity Generating the Discharge:**

   Waste Water Treatment Plant

4. **Applicant's Receiving Waters**

Receiving Waters	Classification
Cahaba River	F&W

   For the Outfall latitude and longitude see the permit application.

5. **Permit Conditions:**

   See attached Rationale and Draft Permit.

6. **PROCEDURES FOR THE FORMULATION OF FINAL DETERMINATIONS**

   a. **Comment Period**

   The Alabama Department of Environmental Management proposes to issue this NPDES permit subject to the limitations and special conditions outlined above. This determination is tentative.

   Interested persons are invited to submit written comments on the draft permit to the following address:

   Russell A. Kelly, Chief
   Permits and Services Division
   Alabama Department of Environmental Management

Birmingham Branch
110 Vulcan Road
Birmingham, AL 35209-4702
(205) 942-6168
(205) 941-1603 (FAX)

Decatur Branch
2715 Sandlin Road, S.W.
Decatur, AL 35603-1333
(256) 353-1713
(256) 340-9359 (FAX)

Mobile Branch
2204 Perimeter Road
Mobile, AL 36615-1131
(251) 450-3400
(251) 479-2593 (FAX)

Mobile-Coastal
3664 Dauphin Street, Suite B
Mobile, AL 36608
(251) 304-1176
(251) 304-1189 (FAX)

1400 Coliseum Blvd

(Mailing Address: Post Office Box 301463; Zip 36130-1463)
Montgomery, Alabama 36110-2059
(334) 271-7714

All comments received prior to the closure of the public notice period (see public notice for date) will be considered in the formulation of the final determination with regard to this permit.

b. Public Hearing

A written request for a public hearing may be filed within the public notice period and must state the nature of the issues proposed to be raised in the hearing. A request for a hearing should be filed with the Department at the following address:

Russell A. Kelly, Chief
Permits and Services Division
Alabama Department of Environmental Management
1400 Coliseum Blvd
(Mailing Address: Post Office Box 301463; Zip 36130-1463)
Montgomery, Alabama 36110-2059
(334) 271-7714

The Director shall hold a public hearing whenever it is found, on the basis of hearing requests, that there exists a significant degree of public interest in a permit application or draft permit. The Director may hold a public hearing whenever such a hearing might clarify one or more issues involved in the permit decision. Public notice of such a hearing will be made in accordance with ADEM Admin. Code r. 335-6-6-.21.

c. Issuance of the Permit

All comments received during the public comment period shall be considered in making the final permit decision. At the time that any final permit decision is issued, the Department shall prepare a response to comments in accordance with ADEM Admin. Code r. 335-6-6-.21. **The permit record, including the response to comments, will be available to the public via the eFile System (http://app.adem.alabama.gov/eFile/) or an appointment to review the record may be made by writing the Permits and Services Division at the above address.**

Unless a request for a stay of a permit or permit provision is granted by the Environmental Management Commission, the proposed permit contained in the Director's determination shall be issued and effective, and such issuance will be the final administrative action of the Alabama Department of Environmental Management.

d. Appeal Procedures

As allowed under ADEM Admin. Code chap. 335-2-1, any person aggrieved by the Department's final administrative action may file a request for hearing to contest such action. Such requests should be received by the Environmental Management Commission within thirty days of issuance of the permit. Requests should be filed with the Commission at the following address:

Alabama Environmental Management Commission
1400 Coliseum Blvd
(Mailing Address: Post Office Box 301463; Zip 36130-1463)
Montgomery, Alabama 36110-2059

All requests must be in writing and shall contain the information provided in ADEM Admin. Code r. 335-2-1-.04.

TOXICITY AND DISINFECTION RATIONALE

Facility Name:	**Riverchase WWTP**	
NPDES Permit Number:	**AL0041653**	
Receiving Stream:	**Cahaba River**	
Facility Design Flow (Q_w):	**3.000 MGD**	
Receiving Stream $7Q_{10}$:	**1.120 cfs**	
Receiving Stream $1Q_{10}$:	**0.840 cfs**	
Winter Headwater Flow (WHF):	**4.43 cfs**	
Summer Temperature for CCC:	**28 deg. Celsius**	
Winter Temperature for CCC:	**18 deg. Celsius**	
Headwater Background NH_3-N Level:	**0.11 mg/l**	
Receiving Stream pH:	**7.0 s.u.**	
Headwater Background FC Level (summer):	**N./A.**	**(Only applicable for facilities with diffusers.)**
(winter):	**N./A.**	

The Stream Dilution Ration (SDR) is calculated using the 7Q10 for all stream classifications.

$$\text{Stream Dilution Ration (SDR)} = \frac{Qw}{7Q10 + Qw} = \textbf{80.56\%}$$

AMMONIA TOXICITY LIMITATIONS

Toxicity-based ammonia limits are calculated in accordance with the *Ammonia Toxicity Protocol* and the *General Guidance for Writing Water Quality Based Toxicity Permits.*

If the Limiting Dilution is less than 1%, the waterbody is considered stream-dominated and the CMC applies.
If the Limiting Dilution is greater than 1%, the waterbody is considered effluent-dominated and the CCC applies.

$$\text{Limiting Dilution} = \frac{Q_w}{7Q_{10} + Q_w}$$

= **80.56%** **Effluent-Dominated, CCC Applies**

Criterion Maximum Concentration (CMC): $CMC=0.411/(1+10^{(7.204-pH)}) + 58.4/(1+10^{(pH-7.204)})$

Criterion Continuous Concentration (CCC): $CCC=[0.0577/(1+10^{(7.688-pH)}) + 2.487/(1+10^{(pH-7.688)})] * Min[2.85,1.45*10^{(0.028*(25-T))}]$

	CMC	CCC
Allowable Summer Instream NH_3-N:	**36.09 mg/l**	**2.48 mg/l**
Allowable Winter Instream NH_3-N:	**36.09 mg/l**	**4.72 mg/l**

$$\text{Summer } NH_3\text{-N Toxicity Limit} = \frac{[(\text{Allowable Instream } NH_3\text{-N}) * (7Q_{10} + Q_w)] - [(\text{Headwater } NH_3\text{-N}) * (7Q_{10})]}{Q_w}$$

= **3.1 mg/l NH3-N at 7Q10**

$$\text{Winter } NH_3\text{-N Toxicity Limit} = \frac{[(\text{Allowable Instream } NH_3\text{-N}) * (WHF + Q_w)] - [(\text{Headwater } NH_3\text{-N}) * (WHF)]}{Q_w}$$

= **9.2 mg/l NH3-N at Winter Flow**

The ammonia limits established in the permit will be the lesser of the DO-based ammonia limit (from the wasteload allocation model) or the toxicity limits calculated above.

	DO-based NH3-N limit	Toxicity-based NH3-N limit
Summer	**1.00 mg/l NH3-N**	**3.10 mg/l NH3-N**
Winter	**2.00 mg/l NH3-N**	**9.20 mg/l NH3-N**

Summer: The DO based limit of 1.00 mg/l NH3-N applies.
Winter: The DO based limit of 2.00 mg/l NH3-N applies.

TOXICITY TESTING REQUIREMENTS (REFERENCE: MUNICIPAL BRANCH TOXICITY PERMITTING STRATEGY)

The following factors trigger toxicity testing requirements:

1. Facility design flow is equal to or greater than 1.0 MGD (major facility).
2. There are significant industrial contributors (SID permits).

Acute toxicity testing is specified for A&I receiving streams, or for stream dilution ratios of 1% or less.
Chronic toxicity testing is specified for all other situations requiring toxicity testing.

Chronic toxicity testing is required

Instream Waste Concentration (IWC) = $\frac{Qw}{7Q10 + Qw}$ = **80.56%** Note: This number will be rounded up for toxicity testing purposes.

DISINFECTION REQUIREMENTS

Bacteria limits are required, and will be the water quality limit for the receiving stream, except where diffusers are used the limit may be adjusted for the dilution provided by the diffuser.

See the attached Disinfection Guidance for applicable stream standards.

(Non-coastal limits apply)
Applicable Stream Classification: **Fish & Wildlife**
Disinfection Type: **Chlorination**
Limit calculation method: **Limits based on meeting stream standards at the point of discharge.**

	Stream Standard (colonies/100ml)	Effluent Limit (colonies/100ml)
E. Coli (applies to Non-coastal and Shellfish Harvesting Coastal)		
Monthly limit as monthly average (November through April):	548	**548**
Monthly limit as monthly aveage (May through October):	126	**126**
Daily Max (November through April):	2507	**2507**
Daily Max (May through October):	298	**298**
Enterococci (applies to Coastal)		
Monthly limit as geometric mean (November through April):	Not applicable	**Not applicable**
Monthly limit as geometric mean (May through October):	Not applicable	**Not applicable**
Daily Max (November through April):	Not applicable	**Not applicable**
Daily Max (May through October):	Not applicable	**Not applicable**

MAXIMUM ALLOWABLE CHLORINATION LIMITS

Toxicity-based chlorine limits are calculated in accordance with the General Guidance for Writing Water Quality Based Toxicity Permits.

Chlorine has been shown to be acutely toxic at 0.019 mg/l and chronically toxic at 0.011 mg/l.

Maximum allowable TRC in effluent:	0.014 mg/l (chronic)	(0.011)/(SDR)
Maximum allowable TRC in effluent:	0.024 mg/l (acute)	(0.019)/(SDR)

NOTE: A maximum chlorine limit will be imposed such that the instream concentration will not exceed acutely toxic concentrations in A & I streams and chronically toxic concentrations in all other streams, but may not exceed 1.0 mg/l.

Prepared By: Nicholas Caraway Date: 2/26/2018

Facility Name: **Riverchase WWTP**

NPDES No.: **AL0041653**

6/13/2017

$Q_d*C_d + Q_{d2}*C_{d2} + Q_s*C_s = Q_r*C_r$

ID	Pollutant	Carcinogen "yes"	Type	Background from upstream source (C_{d2}) Daily Max ug/l	Background from upstream source (C_{d2}) Monthly Ave ug/l	Background Instream (C_s) Daily Max ug/l	Background Instream (C_s) Monthly Ave ug/l	Enter Max Daily Discharge as reported by Applicant (C_d) Max ug/l	Enter Avg Daily Discharge as reported by Applicant (C_d) Ave ug/l	Partition Coefficient (Stream / Lake)
1	Antimony		Metals	0	0	0.5417	0.06925	0	0	-
2	**Arsenic*,****	YES	Metals	0	0	2.554006969	1.042827526	0	0	0.574
3	Beryllium		Metals	0	0	0	0	0	0	-
4	Cadmium**		Metals	0	0	0	0	0	0	0.236
5	Chromium / Chromium III**		Metals	0	0	0.87	0.103571429	0	0	0.210
6	Chromium / Chromium VI**		Metals	0	0	0.1827	0.02175	0	0	
7	Copper**		Metals	0	0	4.974484536	1.01653866	11	7	0.388
8	Lead**		Metals	0	0	0	0	0	0	0.206
9	Mercury**		Metals	0	0	0.241721854	0.060430464	0	0	0.302
10	Nickel**		Metals	0	0	2.001584158	0.300330693	0	0	0.505
11	Selenium		Metals	0	0	0.3048	0.036636	0	0	-
12	Silver		Metals	0	0	0	0	0	0	-
13	Thallium		Metals	0	0	0	0	0	0	-
14	Zinc**		Metals	0	0	16.37614182	1.861151515	0	0	0.330
15	Cyanide		Metals	0	0	0	0	0	0	-
16	Total Phenolic Compounds		Metals	0	0	0	0	0	0	-
17	Hardness (As CaCO3)		Metals	0	0	120800	91463	103000	102670	-
18	Acrolein		VOC	0	0	0	0	0	0	-
19	**Acrylonitrile***	YES	VOC	0	0	0	0	0	0	-
20	**Aldrin**	YES	VOC	0	0	0	0	0	0	-
21	**Benzene***	YES	VOC	0	0	0	0	0	0	-
22	**Bromoform***	YES	VOC	0	0	0	0	0	0	-
23	**Carbon Tetrachloride***	YES	VOC	0	0	0	0	0	0	-
24	**Chlordane**	YES	VOC	0	0	0	0	0	0	-
25	Clorobenzene		VOC	0	0	0	0	0	0	-
26	**Chlorodibromo-Methane***	YES	VOC	0	0	0	0	0	0	-
27	Chloroethane		VOC	0	0	0	0	0	0	-
28	2-Chloro-EthylVinyl Ether		VOC	0	0	0	0	0	0	-
29	**ChloroForm***	YES	VOC	0	0	0	0	0	0	-
30	**4,4'-DDD**	YES	VOC	0	0	0	0	0	0	-
31	**4,4'-DDE**	YES	VOC	0	0	0	0	0	0	-
32	**4,4'-DDT**	YES	VOC	0	0	0	0	0	0	-
33	**Dichlorobromo-Methane***	YES	VOC	0	0	0	0	0	0	-
34	1, 1-Dichloroethane		VOC	0	0	0	0	0	0	-
35	**1, 2-Dichloroethane***	YES	VOC	0	0	0	0	0	0	-
36	Trans-1, 2-Dichloro-Ethylene		VOC	0	0	0	0	0	0	-
37	**1, 1-Dichloroethylene***	YES	VOC	0	0	0	0	0	0	-
38	1, 2-Dichloropropane		VOC	0	0	0	0	0	0	-
39	1, 3-Dichloro-Propylene		VOC	0	0	0	0	0	0	-
40	**Dieldrin**	YES	VOC	0	0	0	0	0	0	-
41	Ethylbenzene		VOC	0	0	0	0	0	0	-
42	Methyl Bromide		VOC	0	0	0	0	0	0	-
43	Methyl Chloride		VOC	0	0	0	0	0	0	-
44	**Methylene Chloride***	YES	VOC	0	0	0	0	0	0	-
45	**1, 1, 2, 2-Tetrachloro-Ethane***	YES	VOC	0	0	0	0	0	0	-
46	**Tetrachloro-Ethylene***	YES	VOC	0	0	0	0	0	0	-
47	Toluene		VOC	0	0	0	0	0	0	-
48	**Toxaphene**	YES	VOC	0	0	0	0	0	0	-
49	**Tributyltine (TBT)**	YES	VOC	0	0	0	0	0	0	-
50	1, 1, 1-Trichloroethane		VOC	0	0	0	0	0	0	-
51	**1, 1, 2-Trichloroethane***	YES	VOC	0	0	0	0	0	0	-
52	**Trichloroethylene***	YES	VOC	0	0	0	0	0	0	-
53	**Vinyl Chloride***	YES	VOC	0	0	0	0	0	0	-
54	P-Chloro-M-Cresol		Acids	0	0	0	0	0	0	-
55	2-Chlorophenol		Acids	0	0	0	0	0	0	-
56	2, 4-Dichlorophenol		Acids	0	0	0	0	0	0	-
57	2, 4-Dimethylphenol		Acids	0	0	0	0	0	0	-
58	4, 6-Dinitro-O-Cresol		Acids	0	0	0	0	0	0	-
59	2, 4-Dinitrophenol		Acids	0	0	0	0	0	0	-
60	**4,6-Dinitro-2-methylphenol**	YES	Acids	0	0	0	0	0	0	-
61	**Dioxin (2,3,7,8-TCDD)**	YES	Acids	0	0	0	0	0	0	-
62	2-Nitrophenol		Acids	0	0	0	0	0	0	-
63	4-Nitrophenol		Acids	0	0	0	0	0	0	-
64	**Pentachlorophenol***	YES	Acids	0	0	0	0	0	0	-
65	Phenol		Acids	0	0	0	0	0	0	-
66	**2, 4, 6-Trichlorophenol***	YES	Acids	0	0	0	0	0	0	-
67	Acenaphthene		Bases	0	0	0	0	0	0	-
68	Acenaphthylene		Bases	0	0	0	0	0	0	-
69	Anthracene		Bases	0	0	0	0	0	0	-
70	Benzidine		Bases	0	0	0	0	0	0	-
71	**Benzo(A)Anthracene***	YES	Bases	0	0	0	0	0	0	-
72	**Benzo(A)Pyrene***	YES	Bases	0	0	0	0	0	0	-
73	3, 4 Benzo-Fluoranthene		Bases	0	0	0	0	0	0	-
74	Benzo(GHI)Perylene		Bases	0	0	0	0	0	0	-
75	Benzo(K)Fluoranthene		Bases	0	0	0	0	0	0	-
76	Bis (2-Chloroethoxy) Methane		Bases	0	0	0	0	0	0	-
77	**Bis (2-Chloroethyl)-Ether***	YES	Bases	0	0	0	0	0	0	-
78	Bis (2-Chloroiso-Propyl) Ether		Bases	0	0	0	0	0	0	-
79	**Bis (2-Ethylhexyl) Phthalate***	YES	Bases	0	0	0	0	18	15	-
80	4-Bromophenyl Phenyl Ether		Bases	0	0	0	0	0	0	-
81	Butyl Benzyl Phthalate		Bases	0	0	0	0	0	0	-
82	2-Chloronaphthalene		Bases	0	0	0	0	0	0	-
83	4-Chlorophenyl Phenyl Ether		Bases	0	0	0	0	0	0	-
84	**Chrysene***	YES	Bases	0	0	0	0	0	0	-
85	Di-N-Butyl Phthalate		Bases	0	0	0	0	0	0	-
86	Di-N-Octyl Phthalate		Bases	0	0	0	0	0	0	-
87	**Dibenzo(A,H)Anthracene***	YES	Bases	0	0	0	0	0	0	-
88	1, 2-Dichlorobenzene		Bases	0	0	0	0	0	0	-
89	1, 3-Dichlorobenzene		Bases	0	0	0	0	0	0	-
90	1, 4-Dichlorobenzene		Bases	0	0	0	0	0	0	-
91	**3, 3-Dichlorobenzidine***	YES	Bases	0	0	0	0	0	0	-
92	Diethyl Phthalate		Bases	0	0	0	0	0	0	-
93	Dimethyl Phthalate		Bases	0	0	0	0	0	0	-
94	**2, 4-Dinitrotoluene***	YES	Bases	0	0	0	0	0	0	-
95	2, 6-Dinitrotoluene		Bases	0	0	0	0	0	0	-
96	1,2-Diphenylhydrazine		Bases	0	0	0	0	0	0	-
97	**Endosulfan (alpha)**	YES	Bases	0	0	0	0	0	0	-
98	**Endosulfan (beta)**	YES	Bases	0	0	0	0	0	0	-
99	**Endosulfan sulfate**	YES	Bases	0	0	0	0	0	0	-
100	**Endrin**	YES	Bases	0	0	0	0	0	0	-
101	**Endrin Aldeyhide**	YES	Bases	0	0	0	0	0	0	-
102	Fluoranthene		Bases	0	0	0	0	0	0	-
103	Fluorene		Bases	0	0	0	0	0	0	-
104	Heptochlor	YES	Bases	0	0	0	0	0	0	-
105	Heptachlor Epoxide	YES	Bases	0	0	0	0	0	0	-
106	**Hexachlorobenzene***	YES	Bases	0	0	0	0	0	0	-
107	**Hexachlorobutadiene***	YES	Bases	0	0	0	0	0	0	-
108	**Hexachlorocyclohexan (alpa)**	YES	Bases	0	0	0	0	0	0	-
109	**Hexachlorocyclohexan (beta)**	YES	Bases	0	0	0	0	0	0	-
110	**Hexachlorocyclohexan (gamma)**	YES	Bases	0	0	0	0	0	0	-
111	HexachlorocycloPentadiene		Bases	0	0	0	0	0	0	-
112	Hexachloroethane		Bases	0	0	0	0	0	0	-
113	**Indene(1, 2, 3-CD)Pyrene***	YES	Bases	0	0	0	0	0	0	-
114	Isophorone		Bases	0	0	0	0	0	0	-
115	Naphthalene		Bases	0	0	0	0	0	0	-
116	Nitrobenzene		Bases	0	0	0	0	0	0	-
117	**N-Nitrosodi-N-Propylamine***	YES	Bases	0	0	0	0	0	0	-
118	**N-Nitrosodi-N-Methylamine***	YES	Bases	0	0	0	0	0	0	-
119	**N-Nitrosodi-N-Phenylamine***	YES	Bases	0	0	0	0	0	0	-
120	**PCB-1016**	YES	Bases	0	0	0	0	0	0	-
121	**PCB-1221**	YES	Bases	0	0	0	0	0	0	-
122	**PCB-1232**	YES	Bases	0	0	0	0	0	0	-
123	**PCB-1242**	YES	Bases	0	0	0	0	0	0	-
124	**PCB-1248**	YES	Bases	0	0	0	0	0	0	-
125	**PCB-1254**	YES	Bases	0	0	0	0	0	0	-
126	**PCB-1260**	YES	Bases	0	0	0	0	0	0	-
127	Phenanthrene		Bases	0	0	0	0	0	0	-
128	Pyrene		Bases	0	0	0	0	0	0	-
129	1, 2, 4-Trichlorobenzene		Bases	0	0	0	0	0	0	-

3	Enter Q_d = wastewater discharge flow from facility (MGD)
4.641687	Q_d = wastewater discharge flow (cfs) (this value is calculated from the MGD)
0	Enter flow from upstream discharge Qd2 = background stream flow in MGD above point of discharge
0	Qd2 = background stream flow from upstream source (cfs)
1.12	Enter 7Q10, Q_s = background stream flow in cfs above point of discharge
0.84	Enter or estimated, 1Q10, Q_s = background stream flow in cfs above point of discharge (1Q10 estimated at 75% of 7Q10)
55.71	Enter Mean Annual Flow, Q_s = background stream flow in cfs above point of discharge
4.43	Enter 7Q2, Q_s = background stream flow in cfs above point of discharge (For LWF class streams)
Enter to Left	Enter C_s = background in-stream pollutant concentration in µg/l (assuming this is zero "0" unless there is data)
$Q_d + Qd2 + Q_s$	Q_r = resultant in-stream flow, after discharge
Calculated on other	C_r = resultant in-stream pollutant concentration in µg/l in the stream (after complete mixing occurs)
91.46	Enter, Background Hardness above point of discharge (assumed 50 South of Birmingham and 100 North of Birmingham)
7.09 s.u.	Enter, Background pH above point of discharge
YES	Enter, is discharge to a stream? "YES" Other option would be to a Lake. (This changes the partition coefficients for the metals)

** Using Partition Coefficients

February 26, 2018

Facility Name: Riverchase WWTP

NPDES No.: AL0041653

Freshwater F&W classification.						Freshwater Acute (µg/l) Q_s =1Q10						Freshwater Chronic (µg/l) Q_s = 7Q10					Human Health Consumption Fish only (µg/l) Carcinogen Q_s = Annual Average Non-Carcinogen Q_s = 7Q10			
ID	Pollutant	RP?	Carcinogen yes	Background from upstream source (Cd2) Daily Max	Max Daily Discharge as reported by Applicant (C_{max})	Water Quality Criteria (C_s)	Draft Permit Limit (C_{max})	20% of Draft Permit Limit	RP?	Background from upstream source (Cd2) Monthly Ave	Avg Daily Discharge as reported by Applicant (C_{avg})	Water Quality Criteria (C_s)	Draft Permit Limit (C_{avg})	20% of Draft Permit Limit	RP?	Water Quality Criteria (C_s)	Draft Permit Limit (C_{avg})	20% of Draft Permit Limit	RP?
1	Antimony			0	0	-	-	-	-	0	0	-	-	-	-	5.72E+02	4.63E+02	9.27E+01	No
2	Arsenic	YES	YES	0	0	592.334	699.068	139.813	No	0	0	261.324	324.128	64.826	No	3.03E-01	-8.58E+00	-1.72E+00	Yes
3	Beryllium			0	0	-	-	-	-	0	0	-	-	-	-	-	-	-	-
4	Cadmium			0	0	7.823	9.239	1.848	No	0	0	0.980	1.216	0.243	No	-	-	-	-
5	Chromium/ Chromium III			0	0	2521.979	2978.099	595.620	No	0	0	328.044	407.174	81.435	No	-	-	-	-
6	Chromium/ Chromium VI			0	0	16.000	18.892	3.772	No	0	0	11.000	13.649	2.730	No	-	-	-	-
7	Copper	YES		0	11	31.843	36.705	7.341	Yes	0	7	21.387	26.302	5.260	Yes	-	-	-	-
8	Lead			0	0	284.427	335.900	67.180	No	0	0	11.084	13.758	2.752	No	-	-	-	-
9	Mercury			0	0	2.400	2.791	0.558	No	0	0	0.012	0.000	0.000	No	4.24E-02	3.81E-02	7.62E-03	No
10	Nickel			0	0	859.755	1014.982	202.996	No	0	0	95.462	118.461	23.692	No	9.93E+02	1.23E+03	2.46E+02	No
11	Selenium			0	0	20.000	23.564	4.713	No	0	0	5.000	6.198	1.240	No	2.43E+03	3.02E+03	6.03E+02	No
12	Silver			0	0	2.759	3.258	0.652	No	0	0	-	-	-	-	-	-	-	-
13	Thallium			0	0	-	-	-	-	0	0	-	-	-	-	2.74E-01	3.40E-01	6.79E-02	No
14	Zinc			0	0	329.225	385.840	77.168	No	0	0	331.918	411.558	82.312	No	1.49E+04	1.85E+04	3.70E+03	No
15	Cyanide			0	0	22.900	25.981	5.196	No	0	0	5.200	6.455	1.291	No	9.33E+03	1.16E+04	2.32E+03	No
16	Total Phenolic Compounds			0	0	-	-	-	-	0	0	-	-	-	-	-	-	-	-
17	Hardness (As CaCO3)			0	103000	-	-	-	-	0	102670	-	-	-	-	-	-	-	-
18	Acrolein			0	0	-	-	-	-	0	0	-	-	-	-	5.43E+00	6.74E+00	1.35E+00	No
19	Acrylonitrile		YES	0	0	-	-	-	-	0	0	-	-	-	-	1.44E-01	1.87E+00	3.75E-01	No
20	Aldrin		YES	0	0	3.000	3.543	0.709	No	0	0	-	-	-	-	2.94E-05	3.82E-04	7.64E-05	No
21	Benzene		YES	0	0	-	-	-	-	0	0	-	-	-	-	1.55E+01	2.01E+02	4.02E+01	No
22	Bromoform		YES	0	0	-	-	-	-	0	0	-	-	-	-	7.88E+01	1.02E+03	2.05E+02	No
23	Carbon Tetrachlorida		YES	0	0	-	-	-	-	0	0	-	-	-	-	8.67E-01	1.24E+01	2.49E+00	No
24	Chlordane		YES	0	0	2.400	2.834	0.567	No	0	0	0.0043	0.005	0.001	No	4.73E-04	6.15E-03	1.23E-03	No
25	Clorobenzene			0	0	-	-	-	-	0	0	-	-	-	-	9.08E+02	1.12E+03	2.25E+02	No
26	Chlorodibromo-Methane		YES	0	0	-	-	-	-	0	0	-	-	-	-	7.41E+00	9.63E+01	1.93E+01	No
27	Chloroethane			0	0	-	-	-	-	0	0	-	-	-	-	-	-	-	-
28	2-Chloro-Ethylvinyl Ether			0	0	-	-	-	-	0	0	-	-	-	-	-	-	-	-
29	ChloroForm		YES	0	0	-	-	-	-	0	0	-	-	-	-	1.02E+02	1.33E+03	2.65E+02	No
30	4,4' - DDD		YES	0	0	-	-	-	-	0	0	-	-	-	-	1.81E-04	2.36E-03	4.72E-04	No
31	4,4' - DDE		YES	0	0	-	-	-	-	0	0	-	-	-	-	1.28E-04	1.66E-03	3.33E-04	No
32	4,4' - DDT		YES	0	0	1.100	1.299	0.260	No	0	0	0.001	0.001	0.000	No	1.28E-04	1.66E-03	3.33E-04	No
33	Dichlorobromo-Methane		YES	0	0	-	-	-	-	0	0	-	-	-	-	1.00E+01	1.30E+02	2.61E+01	No
34	1, 1-Dichloroethane			0	0	-	-	-	-	0	0	-	-	-	-	-	-	-	-
35	1, 2-Dichloroethane		YES	0	0	-	-	-	-	0	0	-	-	-	-	2.14E+01	2.78E+02	5.56E+01	No
36	Trans-1, 2-Dichloro-Ethylene			0	0	-	-	-	-	0	0	-	-	-	-	5.91E+03	7.33E+03	1.47E+03	No
37	1, 1-Dichloroethylene		YES	0	0	-	-	-	-	0	0	-	-	-	-	4.17E+03	5.42E+04	1.08E+04	No
38	1, 2-Dichloropropane			0	0	-	-	-	-	0	0	-	-	-	-	5.40E+00	1.05E+01	2.11E+00	No
39	1, 3-Dichoro-Propylene			0	0	-	-	-	-	0	0	-	-	-	-	1.23E+01	1.52E+01	3.05E+00	No
40	Dieldrin		YES	0	0	0.240	0.283	0.057	No	0	0	0.056	0.070	0.014	No	3.12E-05	4.06E-04	8.12E-05	No
41	Ethylbenzene			0	0	-	-	-	-	0	0	-	-	-	-	1.24E+03	1.54E+03	3.09E+02	No
42	Methyl Bromide			0	0	-	-	-	-	0	0	-	-	-	-	8.71E+02	1.08E+03	2.16E+02	No
43	Methyl Chloride			0	0	-	-	-	-	0	0	-	-	-	-	-	-	-	-
44	Methylene Chloride		YES	0	0	-	-	-	-	0	0	-	-	-	-	3.46E+02	4.49E+03	8.99E+02	No
45	1, 1, 2, 2-Tetrachloro-Ethane		YES	0	0	-	-	-	-	0	0	-	-	-	-	2.33E+00	3.03E+01	6.07E+00	No
46	Tetrachloro-Ethylene		YES	0	0	-	-	-	-	0	0	-	-	-	-	1.92E+00	2.49E+01	4.99E+00	No
47	Toluene			0	0	-	-	-	-	0	0	-	-	-	-	8.72E+03	1.08E+04	2.17E+03	No
48	Toxaphene		YES	0	0	0.730	0.862	0.172	No	0	0	0.0002	0.000	0.000	No	1.63E-04	2.11E-03	4.21E-04	No
49	Tributyltin (TBT)		YES	0	0	0.460	0.543	0.109	No	0	0	0.072	0.089	0.018	No	-	-	-	-
50	1, 1, 1-Trichloroethane			0	0	-	-	-	-	0	0	-	-	-	-	-	-	-	-
51	1, 1, 2-Trichloroethane		YES	0	0	-	-	-	-	0	0	-	-	-	-	8.10E+00	1.18E+02	2.37E+01	No
52	Trichlorethylene		YES	0	0	-	-	-	-	0	0	-	-	-	-	1.75E+01	2.27E+02	4.54E+01	No
53	Vinyl Chloride		YES	0	0	-	-	-	-	0	0	-	-	-	-	1.42E+00	1.85E+01	3.70E+00	No
54	P-Chloro-M-Cresol			0	0	-	-	-	-	0	0	-	-	-	-	-	-	-	-
55	2-Chlorophenol			0	0	-	-	-	-	0	0	-	-	-	-	8.71E+01	1.08E+02	2.16E+01	No
56	2, 4-Dichlorophenol			0	0	-	-	-	-	0	0	-	-	-	-	1.72E+02	2.13E+02	4.27E+01	No
57	2, 4-Dimethylphenol			0	0	-	-	-	-	0	0	-	-	-	-	4.56E+02	6.18E+02	1.24E+02	No
58	4, 6-Dinitro-O-Cresol			0	0	-	-	-	-	0	0	-	-	-	-	-	-	-	-
59	2, 4-Dinitrophenol			0	0	-	-	-	-	0	0	-	-	-	-	3.11E+03	3.86E+03	7.72E+02	No
60	4,6-Dinitro-2-methylphenol		YES	0	0	-	-	-	-	0	0	-	-	-	-	1.60E+02	2.15E+03	4.30E+02	No
61	Dioxin (2,3,7,8-TCDD)		YES	0	0	-	-	-	-	0	0	-	-	-	-	2.67E-08	3.47E-07	6.93E-08	No
62	2-Nitrophenol			0	0	-	-	-	-	0	0	-	-	-	-	-	-	-	-
63	4-Nitrophenol			0	0	-	-	-	-	0	0	-	-	-	-	-	-	-	-
64	Pentachlorophenol		YES	0	0	8.723	10.302	2.060	No	0	0	6.993	8.307	1.661	No	1.77E+00	2.30E+01	4.60E+00	No
65	Phenol			0	0	-	-	-	-	0	0	-	-	-	-	5.00E+05	6.21E+05	1.24E+05	No
66	2, 4, 6-Trichlorophenol		YES	0	0	-	-	-	-	0	0	-	-	-	-	1.41E+00	1.84E+01	3.68E+00	No
67	Acenaphthene			0	0	-	-	-	-	0	0	-	-	-	-	3.79E+02	7.18E+02	1.44E+02	No
68	Acenaphthylene			0	0	-	-	-	-	0	0	-	-	-	-	-	-	-	-
69	Anthracene			0	0	-	-	-	-	0	0	-	-	-	-	2.33E+04	2.90E+04	5.79E+03	No
70	Benzidine			0	0	-	-	-	-	0	0	-	-	-	-	1.16E-04	1.44E-04	2.88E-05	No
71	Benzo(A)Anthracene		YES	0	0	-	-	-	-	0	0	-	-	-	-	1.07E-02	1.39E-01	2.77E-02	No
72	Benzo(A)Pyrene		YES	0	0	-	-	-	-	0	0	-	-	-	-	1.07E-02	1.39E-01	2.77E-02	No
73	Benzo(b)fluoranthene			0	0	-	-	-	-	0	0	-	-	-	-	1.07E-02	1.32E-02	2.65E-03	No
74	Benzo(GHI)Perylene			0	0	-	-	-	-	0	0	-	-	-	-	-	-	-	-
75	Benzo(K)Fluoranthene			0	0	-	-	-	-	0	0	-	-	-	-	1.07E-02	1.32E-02	2.65E-03	No
76	Bis (2-Chloroethoxy) Methane			0	0	-	-	-	-	0	0	-	-	-	-	-	-	-	-
77	Bis (2-Chloroethyl)-Ether		YES	0	0	-	-	-	-	0	0	-	-	-	-	3.07E-01	4.00E+00	7.99E-01	No
78	Bis (2-Chloroiso-Propyl) Ether			0	0	-	-	-	-	0	0	-	-	-	-	3.76E+04	4.69E+04	9.38E+03	No
79	Bis (2-Ethylhexyl) Phthalate	YES	YES	0	18	-	-	-	-	0	15	-	-	-	-	1.28E+00	1.67E+01	3.33E+00	Yes
80	4-Bromophenyl Phenyl Ether			0	0	-	-	-	-	0	0	-	-	-	-	-	-	-	-
81	Butyl Benzyl Phthalate			0	0	-	-	-	-	0	0	-	-	-	-	1.13E+03	1.40E+03	2.80E+02	No
82	2-Chloronaphthalene			0	0	-	-	-	-	0	0	-	-	-	-	9.24E+02	1.15E+03	2.29E+02	No
83	4-Chlorophenyl Phenyl Ether			0	0	-	-	-	-	0	0	-	-	-	-	-	-	-	-
84	Chrysene		YES	0	0	-	-	-	-	0	0	-	-	-	-	1.07E-02	1.39E-01	2.77E-02	No
85	Di-N-Butyl Phthalate			0	0	-	-	-	-	0	0	-	-	-	-	2.62E+03	3.25E+03	6.51E+02	No
86	Di-N-Octyl Phthalate			0	0	-	-	-	-	0	0	-	-	-	-	-	-	-	-
87	Dibenzo(A,H)Anthracene		YES	0	0	-	-	-	-	0	0	-	-	-	-	1.07E-02	1.39E-01	2.77E-02	No
88	1, 2-Dichlorobenzene			0	0	-	-	-	-	0	0	-	-	-	-	7.59E+02	9.38E+02	1.88E+02	No
89	1, 3-Dichlorobenzene			0	0	-	-	-	-	0	0	-	-	-	-	5.62E+02	6.98E+02	1.40E+02	No
90	1, 4-Dichlorobenzene			0	0	-	-	-	-	0	0	-	-	-	-	1.12E+02	1.40E+02	2.79E+01	No
91	3, 3-Dichlorobenzidine		YES	0	0	-	-	-	-	0	0	-	-	-	-	1.66E-02	2.16E-01	4.32E-02	No
92	Diethyl Phthalate			0	0	-	-	-	-	0	0	-	-	-	-	2.56E+04	3.17E+04	6.35E+03	No
93	Dimethyl Phthalate			0	0	-	-	-	-	0	0	-	-	-	-	6.48E+05	8.05E+05	1.61E+05	No
94	2, 4-Dinitrotoluene		YES	0	0	-	-	-	-	0	0	-	-	-	-	1.86E+00	2.58E+01	5.15E+00	No
95	2, 6-Dinitrotoluene			0	0	-	-	-	-	0	0	-	-	-	-	-	-	-	-
96	1,2-Diphenylhydrazine			0	0	-	-	-	-	0	0	-	-	-	-	1.17E-01	1.45E-01	2.91E-02	No
97	Endosulfan (alpha)		YES	0	0	0.22	0.260	0.052	No	0	0	0.056	0.070	0.014	No	5.19E+01	6.74E+02	1.35E+02	No
98	Endosulfan (beta)		YES	0	0	0.22	0.260	0.052	No	0	0	0.056	0.070	0.014	No	5.19E+01	6.74E+02	1.35E+02	No
99	Endosulfan sulfate		YES	0	0	-	-	-	-	0	0	-	-	-	-	5.19E+01	6.74E+02	1.35E+02	No
100	Endrin		YES	0	0	0.086	0.102	0.020	No	0	0	0.036	0.045	0.009	No	3.53E-02	4.59E-01	9.17E-02	No
101	Endrin Aldehyde		YES	0	0	-	-	-	-	0	0	-	-	-	-	1.76E-01	2.29E+00	4.58E-01	No
102	Fluoranthene			0	0	-	-	-	-	0	0	-	-	-	-	8.12E+01	1.01E+02	2.01E+01	No
103	Fluorene			0	0	-	-	-	-	0	0	-	-	-	-	3.11E+03	3.86E+03	7.72E+02	No
104	Heptochlor		YES	0	0	0.52	0.614	0.123	No	0	0	0.0038	0.005	0.001	No	4.69E-05	6.02E-04	1.20E-04	No
105	Heptachlor Epoxide		YES	0	0	0.52	0.614	0.123	No	0	0	0.0038	0.005	0.001	No	2.36E-05	2.98E-04	5.95E-05	No
106	Hexachlorobenzene		YES	0	0	-	-	-	-	0	0	-	-	-	-	1.69E-04	2.18E-03	4.36E-04	No
107	Hexachlorobutadiene		YES	0	0	-	-	-	-	0	0	-	-	-	-	1.09E+01	1.40E+02	2.80E+01	No
108	Hexachlorocyclohexan (alpha)		YES	0	0	-	-	-	-	0	0	-	-	-	-	2.89E-03	3.70E-02	7.41E-03	No
109	Hexachlorocyclohexan (beta)		YES	0	0	-	-	-	-	0	0	-	-	-	-	9.67E-03	1.30E-01	2.59E-02	No
110	Hexachlorocyclohexan (gamma)		YES	0	0	0.95	1.122	0.224	No	0	0	-	-	-	-	1.08E+00	1.40E+01	2.80E+00	No
111	HexachlorocycloPentadiene			0	0	-	-	-	-	0	0	-	-	-	-	5.45E+02	8.01E+02	1.60E+02	No
112	Hexachloroethane			0	0	-	-	-	-	0	0	-	-	-	-	1.93E+00	2.38E+00	4.76E-01	No
113	Indeno(1, 2, 3-CK)Pyrene		YES	0	0	-	-	-	-	0	0	-	-	-	-	1.07E-02	1.39E-01	2.77E-02	No
114	Isophorone			0	0	-	-	-	-	0	0	-	-	-	-	5.81E+02	6.96E+02	1.39E+02	No
115	Naphthalene			0	0	-	-	-	-	0	0	-	-	-	-	-	-	-	-
116	Nitrobenzene			0	0	-	-	-	-	0	0	-	-	-	-	4.04E+02	5.01E+02	1.00E+02	No
117	N-Nitrosodi-N-Propylamine		YES	0	0	-	-	-	-	0	0	-	-	-	-	2.95E-01	3.84E+00	7.67E-01	No
118	N-Nitrosodimethylamine		YES	0	0	-	-	-	-	0	0	-	-	-	-	1.76E+00	2.29E+01	4.58E+00	No
119	N-Nitrosodiphenylamine		YES	0	0	-	-	-	-	0	0	-	-	-	-	3.50E+00	4.55E+01	9.11E+00	No
120	PCB-1016		YES	0	0	-	-	-	-	0	0	0.014	0.017	0.003	No	3.74E-05	4.86E-04	9.72E-05	No
121	PCB-1221		YES	0	0	-	-	-	-	0	0	0.014	0.017	0.003	No	3.74E-05	4.86E-04	9.72E-05	No
122	PCB-1232		YES	0	0	-	-	-	-	0	0	0.014	0.017	0.003	No	3.74E-05	4.86E-04	9.72E-05	No
123	PCB-1242		YES	0	0	-	-	-	-	0	0	0.014	0.017	0.003	No	3.74E-05	4.86E-04	9.72E-05	No
124	PCB-1248		YES	0	0	-	-	-	-	0	0	0.014	0.017	0.003	No	3.74E-05	4.86E-04	9.72E-05	No
125	PCB-1254		YES	0	0	-	-	-	-	0	0	0.014	0.017	0.003	No	3.74E-05	4.86E-04	9.72E-05	No
126	PCB-1260		YES	0	0	-	-	-	-	0	0	0.014	0.017	0.003	No	3.74E-05	4.86E-04	9.72E-05	No
127	Phenanthrene			0	0	-	-	-	-	0	0	-	-	-	-	-	-	-	-
128	Pyrene			0	0	-	-	-	-	0	0	-	-	-	-	2.33E+03	2.90E+03	5.79E+02	No
129	1, 2, 4-Trichlorobenzene			0	0	-	-	-	-	0	0	-	-	-	-	4.09E+01	5.08E+01	1.02E+01	No

Waste Load Allocation Summary

REQUEST INFORMATION

Request Number: 1844

From: | In Branch/Section | Date Submitted | Date Required | FUND Code

Date Permit application received by NPDES program

Receiving Waterbody: Cahaba River

Previous Stream Name:

Facility Name: Hoover Riverchase WWTP (Name of Discharger-WQ will use to file)

Previous Discharger Name

River Basin: Cahaba | Outfall Latitude: 33.369610 (decimal degrees)

*County: Shelby | Outfall Longitude: -86.795609 (decimal degrees)

Permit Number: AL0041653 | Permit Type: CONVERSION

Permit Status: Active

Type of Discharger: MUNICIPAL

Do other discharges exist that may impact the model? ☑ Yes ☐ No

If yes, impacting dischargers names.	Impacting dischargers permit numbers.
Hoover Inverness Jefferson County Cahaba River Hoover Riverchase Cahaba Mobile Home Estates Trussville	

Existing Discharge Design Flow: MGD

Proposed Discharge Design Flow: MGD

Note: The flow rates given should be those requested for modeling.

Comments included: ☑ Yes ☐ No

Information Verified By: CPR

Year File Was Created: 1999

Response ID Number: 1190

Lat/Long Method: GPS

12 Digit HUC Code: 031502020204

Use Classification: F&W

Site Visit Completed? ☑ Yes ☐ No

Date of Site Visit: 3/8/2010

Waterbody Impaired? ☑ Yes ☐ No

Date of WLA Response: 4/8/2010

Antidegradation ☐ Yes ☑ No

Approved TMDL? ☑ Yes ☐ No

Waterbody Tier Level: Tier I

Use Support Category: 4A

Approval Date of TMDL: 10/26/2006

Waste Load Allocation Information

Modeled Reach Length: 105 Miles

Date of Allocation: 3/3/2010

Name of Model Used: RIV1

Allocation Type: 2 Seasons

Model Completed by: Tetra Tech

Type of Model Used: Calibrated / Verified

Allocation Developed by: Water Quality Branch

Waste Load Allocation Summary

Annual Effluent Limits	Conventional Parameters		Other Parameters	
	Qw 3 MGD	Qw 3 MGD	Qw 3 MGD	Qw MGD
Qw MGD	Season Winter	Season Summer	Season Growing	Season
	From Dec	From May	From Apr	From
CBOD5	Through Apr	Through Nov	Through Oct	Through
NH3-N	CBOD5 10 mg/L	CBOD5 4 mg/L	TP 0.043 mg/L	TP
TKN	NH3-N 2 mg/L	NH3-N 1 mg/L	TN	TN
D.O.	TKN 4 mg/L	TKN 2 mg/L	TSS	TSS
	D.O. 5 mg/L	D.O. 6 mg/L		

"Monitor Only" Parameters for Effluent:	Parameter	Frequency	Parameter	Frequency
	NO2+NO3-N	Monthly		
	TP	Monthly (Nov-Mar)		

Water Quality Characteristics Immediately Upstream of Discharge

Parameter	Summer		Winter	
CBODu		mg/l		mg/l
NH3-N		mg/l		mg/l
Temperature		°C		°C
pH		su		su

Hydrology at Discharge Location

Drainage Area Qualifier			Method Used to Calculate
Exact	Drainage Area 227 sq mi		
	Stream 7Q10 0.71 cfs		ADEM Estimate w/USGS Gage Data
	Stream 1Q10 0.45 cfs		ADEM Estimate w/USGS Gage Data
	Stream 7Q2 4.34 cfs		ADEM Estimate w/USGS Gage Data
	Annual Average 358 cfs		ADEM Estimate w/USGS Gage Data

Comments and/or Notations

This is a calibrated/verified model completed by Tetra Tech for DO. It employed a 3-year time frame from 1999 through 2001. Critical conditions occurred during the drought year of 2000. Nutrient TMDL completed in October 2006. Riverchase is requesting an upgrade from 1.5 to 3 mgd. The Total Phosphorus (TP) limit of 0.043 mg/L is established according to the Final Cahaba River Nutrient TMDL dated October 26, 2006 and is applied as a monthly average limit for the months of April through October. Implementation of the TP limit will be based on a compliance schedule established by ADEM's NPDES Program. TP monitoring should be conducted monthly from Nov through March.

Please print or type in the unshaded areas only.

Form Approved. OMB No. 2040-0086.

FORM 1 GENERAL

EPA

U.S. ENVIRONMENTAL PROTECTION AGENCY

GENERAL INFORMATION

Consolidated Permits Program

(Read the "General Instructions" before starting.)

I. EPA I.D. NUMBER

S		T/A	C
F	AL0041653		D
1	2 — 13	14	15

RECEIVED
SEP 29 2017
IND / MUN BRANCH

LABEL ITEMS	
I.	EPA I.D. NUMBER
III.	FACILITY NAME
V.	FACILITY MAILING ADDRESS
VI.	FACILITY LOCATION

PLEASE PLACE LABEL IN THIS SPACE

GENERAL INSTRUCTIONS

If a preprinted label has been provided, affix it in the designated space. Review the information carefully; if any of it is incorrect, cross through it and enter the correct data in the appropriate fill-in area below. Also, if any of the preprinted data is absent *(the area to the left of the label space lists the information that should appear)*, please provide it in the proper fill-in area(s) below. If the label is complete and correct, you need not complete Items I, III, V, and VI *(except VI-B which must be completed regardless)*. Complete all items if no label has been provided. Refer to the instructions for detailed item descriptions and for the legal authorizations under which this data is collected.

II. POLLUTANT CHARACTERISTICS

INSTRUCTIONS: Complete A through J to determine whether you need to submit any permit application forms to the EPA. If you answer "yes" to any questions, you must submit this form and the supplemental form listed in the parenthesis following the question. Mark "X" in the box in the third column if the supplemental form is attached. If you answer "no" to each question, you need not submit any of these forms. You may answer "no" if your activity is excluded from permit requirements; see Section C of the instructions. See also, Section D of the instructions for definitions of **bold-faced terms**.

SPECIFIC QUESTIONS	Mark "X" YES	NO	FORM ATTACHED
A. Is this facility a **publicly owned treatment works** which results in a **discharge** to **waters of the U.S.**? (FORM 2A)	X (16)	(17)	(18)
B. Does or will this facility *(either existing or proposed)* include a **concentrated animal feeding operation** or **aquatic animal production facility** which results in a **discharge** to **waters of the U.S.**? (FORM 2B)	(19)	X (20)	(21)
C. Is this a facility which currently results in **discharges** to **waters of the U.S.** other than those described in A or B above? (FORM 2C)	(22)	X (23)	(24)
D. Is this a proposed facility *(other than those described in A or B above)* which will result in a **discharge** to **waters of the U.S.**? (FORM 2D)	(25)	X (26)	(27)
E. Does or will this facility treat, store, or dispose of **hazardous wastes**? (FORM 3)	(28)	X (29)	(30)
F. Do you or will you inject at this facility industrial or municipal effluent below the lowermost stratum containing, within one quarter mile of the well bore, underground sources of drinking water? (FORM 4)	(31)	X (32)	(33)
G. Do you or will you inject at this facility any produced water or other fluids which are brought to the surface in connection with conventional oil or natural gas production, inject fluids used for enhanced recovery of oil or natural gas, or inject fluids for storage of liquid hydrocarbons? (FORM 4)	(34)	X (35)	(36)
H. Do you or will you inject at this facility fluids for special processes such as mining of sulfur by the Frasch process, solution mining of minerals, in situ combustion of fossil fuel, or recovery of geothermal energy? (FORM 4)	(37)	X (38)	(39)
I. Is this facility a proposed **stationary source** which is one of the 28 industrial categories listed in the instructions and which will potentially emit 100 tons per year of any air pollutant regulated under the Clean Air Act and may affect or be located in an attainment area? (FORM 5)	(40)	X (41)	(42)
J. Is this facility a proposed **stationary source** which is NOT one of the 28 industrial categories listed in the instructions and which will potentially emit 250 tons per year of any air pollutant regulated under the Clean Air Act and may affect or be located in an **attainment area**? (FORM 5)	(43)	X (44)	(45)

III. NAME OF FACILITY

1 SKIP: City of Hoover Riverchase WWTP

IV. FACILITY CONTACT

A. NAME & TITLE *(last, first, & title)*	B. PHONE *(area code & no.)*
2 Phil McGraw, Civil Engineer	(205) 444-7637

V. FACILTY MAILING ADDRESS

A. STREET OR P.O. BOX: 3 100 Municipal Lane

B. CITY OR TOWN	C. STATE	D. ZIP CODE
4 Hoover	AL	35216

VI. FACILITY LOCATION

A. STREET, ROUTE NO. OR OTHER SPECIFIC IDENTIFIER: 5 2004 Parkway River Road

B. COUNTY NAME: Jefferson

C. CITY OR TOWN	D. STATE	E. ZIP CODE	F. COUNTY CODE *(if known)*
6 Hoover	AL	35244	037

CONTINUED FROM THE FRONT

VII. SIC CODES *(4-digit, in order of priority)*

A. FIRST	B. SECOND
C 7 (specify)	C 7 (specify)
C. THIRD	D. FOURTH
C 7 (specify)	C 7 (specify)

VIII. OPERATOR INFORMATION

A. NAME: C 8 Clearwater Solutions, LLC

B. Is the name listed in Item VIII-A also the owner? ☐ YES ☑ NO

C. STATUS OF OPERATOR *(Enter the appropriate letter into the answer box: if "Other," specify.)*

F = FEDERAL
S = STATE
P = PRIVATE
M = PUBLIC *(other than federal or state)*
O = OTHER *(specify)*

P (specify)

D. PHONE *(area code & no.)*: C A (334) 532-3201

E. STREET OR P.O. BOX: 219 South 8th Street Suite 3

F. CITY OR TOWN: C B Opelika

G. STATE: AL

H. ZIP CODE: 36801

IX. INDIAN LAND

Is the facility located on Indian lands? ☐ YES ☑ NO

X. EXISTING ENVIRONMENTAL PERMITS

A. NPDES *(Discharges to Surface Water)*	D. PSD *(Air Emissions from Proposed Sources)*
C T I 9 N AL0041653	C T I 9 P
B. UIC *(Underground Injection of Fluids)*	E. OTHER *(specify)*
C T I 9 U	C T I 9 (specify)
C. RCRA *(Hazardous Wastes)*	E. OTHER *(specify)*
C T I 9 R	C T I 9 (specify)

XI. MAP

Attach to this application a topographic map of the area extending to at least one mile beyond property boundaries. The map must show the outline of the facility, the location of each of its existing and proposed intake and discharge structures, each of its hazardous waste treatment, storage, or disposal facilities, and each well where it injects fluids underground. Include all springs, rivers, and other surface water bodies in the map area. See instructions for precise requirements.

XII. NATURE OF BUSINESS *(provide a brief description)*

The collection and treatment of residential and commercial wastewater prior to discharge.

XIII. CERTIFICATION *(see instructions)*

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this application and all attachments and that, based on my inquiry of those persons immediately responsible for obtaining the information contained in the application, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

A. NAME & OFFICIAL TITLE *(type or print)*	B. SIGNATURE	C. DATE SIGNED
Allan Rice City Administrator		9/29/17

COMMENTS FOR OFFICIAL USE ONLY

C

FACILITY NAME AND PERMIT NUMBER:
City of Hoover Riverchase WWTP AL0041653

Form Approved 1/14/99
OMB Number 2040-0086

FORM 2A NPDES

NPDES FORM 2A APPLICATION OVERVIEW

APPLICATION OVERVIEW

Form 2A has been developed in a modular format and consists of a "Basic Application Information" packet and a "Supplemental Application Information" packet. The Basic Application Information packet is divided into two parts. All applicants must complete Parts A and C. Applicants with a design flow greater than or equal to 0.1 mgd must also complete Part B. Some applicants must also complete the Supplemental Application Information packet. The following items explain which parts of Form 2A you must complete.

BASIC APPLICATION INFORMATION:

A. **Basic Application Information for all Applicants.** All applicants must complete questions A.1 through A.8. A treatment works that discharges effluent to surface waters of the United States must also answer questions A.9 through A.12.

B. **Additional Application Information for Applicants with a Design Flow ≥ 0.1 mgd.** All treatment works that have design flows greater than or equal to 0.1 million gallons per day must complete questions B.1 through B.6.

C. **Certification.** All applicants must complete Part C (Certification).

SUPPLEMENTAL APPLICATION INFORMATION:

D. **Expanded Effluent Testing Data.** A treatment works that discharges effluent to surface waters of the United States and meets one or more of the following criteria must complete Part D (Expanded Effluent Testing Data):

1. Has a design flow rate greater than or equal to 1 mgd,
2. Is required to have a pretreatment program (or has one in place), or
3. Is otherwise required by the permitting authority to provide the information.

E. **Toxicity Testing Data.** A treatment works that meets one or more of the following criteria must complete Part E (Toxicity Testing Data):

1. Has a design flow rate greater than or equal to 1 mgd,
2. Is required to have a pretreatment program (or has one in place), or
3. Is otherwise required by the permitting authority to submit results of toxicity testing.

F. **Industrial User Discharges and RCRA/CERCLA Wastes.** A treatment works that accepts process wastewater from any significant industrial users (SIUs) or receives RCRA or CERCLA wastes must complete Part F (Industrial User Discharges and RCRA/CERCLA Wastes). SIUs are defined as:

1. All industrial users subject to Categorical Pretreatment Standards under 40 Code of Federal Regulations (CFR) 403.6 and 40 CFR Chapter I, Subchapter N (see instructions); and
2. Any other industrial user that:
   a. Discharges an average of 25,000 gallons per day or more of process wastewater to the treatment works (with certain exclusions); or
   b. Contributes a process wastestream that makes up 5 percent or more of the average dry weather hydraulic or organic capacity of the treatment plant; or
   c. Is designated as an SIU by the control authority.

G. **Combined Sewer Systems.** A treatment works that has a combined sewer system must complete Part G (Combined Sewer Systems).

ALL APPLICANTS MUST COMPLETE PART C (CERTIFICATION)

Form Approved 1/14/99
OMB Number 2040-0086

BASIC APPLICATION INFORMATION

PART A. BASIC APPLICATION INFORMATION FOR ALL APPLICANTS:

All treatment works must complete questions A.1 through A.8 of this Basic Application Information packet.

A.1. Facility Information.

Facility name: City of Hoover Riverchase WWTP

Mailing Address: 100 Municipal Lane
Hoover, AL 35216

Contact person: Phil McGraw

Title: Civil Engineer

Telephone number: (205) 444-7637

Facility Address (not P.O. Box): 2004 Pakway River Road
Hoover, AL 35244

A.2. Applicant Information. If the applicant is different from the above, provide the following:

Applicant name: Same as A.1.

Mailing Address:

Contact person:

Title:

Telephone number:

Is the applicant the owner or operator (or both) of the treatment works?

✓ owner ____ operator

Indicate whether correspondence regarding this permit should be directed to the facility or the applicant.

____ facility ✓ applicant

A.3. Existing Environmental Permits. Provide the permit number of any existing environmental permits that have been issued to the treatment works (include state-issued permits).

NPDES	AL0041653	PSD	
UIC		Other	
RCRA		Other	

A.4. Collection System Information. Provide information on municipalities and areas served by the facility. Provide the name and population of each entity and, if known, provide information on the type of collection system (combined vs. separate) and its ownership (municipal, private, etc.).

Name	Population Served	Type of Collection System	Ownership
Riverchase	8600	Separate	Municipal

Total population served 8600

A.5. Indian Country.

a. Is the treatment works located in Indian Country?

_____ Yes ✓ No

b. Does the treatment works discharge to a receiving water that is either in Indian Country or that is upstream from (and eventually flows through) Indian Country?

_____ Yes ✓ No

A.6. Flow. Indicate the design flow rate of the treatment plant (i.e., the wastewater flow rate that the plant was built to handle). Also provide the average daily flow rate and maximum daily flow rate for each of the last three years. Each year's data must be based on a 12-month time period with the 12th month of "this year" occurring no more than three months prior to this application submittal.

a. Design flow rate 3.000 mgd

	Two Years Ago	Last Year	This Year	
b. Annual average daily flow rate	1.222	1.142	1.118	mgd
c. Maximum daily flow rate	3.671	3.328	3.844	mgd

A.7. Collection System. Indicate the type(s) of collection system(s) used by the treatment plant. Check all that apply. Also estimate the percent contribution (by miles) of each.

✓ Separate sanitary sewer	100.00 %
_____ Combined storm and sanitary sewer	_____ %

A.8. Discharges and Other Disposal Methods.

a. Does the treatment works discharge effluent to waters of the U.S.? ✓ Yes _____ No

If yes, list how many of each of the following types of discharge points the treatment works uses:

i. Discharges of treated effluent	1
ii. Discharges of untreated or partially treated effluent	0
iii. Combined sewer overflow points	0
iv. Constructed emergency overflows (prior to the headworks)	0
v. Other N/A	0

b. Does the treatment works discharge effluent to basins, ponds, or other surface impoundments that do not have outlets for discharge to waters of the U.S.? _____ Yes ✓ No

If yes, provide the following for each surface impoundment:

Location: N/A

Annual average daily volume discharged to surface impoundment(s) _____ mgd

Is discharge _____ continuous or _____ intermittent?

c. Does the treatment works land-apply treated wastewater? _____ Yes ✓ No

If yes, provide the following for each land application site:

Location: N/A

Number of acres: _____

Annual average daily volume applied to site: _____ Mgd

Is land application _____ continuous or _____ intermittent?

d. Does the treatment works discharge or transport treated or untreated wastewater to another treatment works? _____ Yes ✓ No

If yes, describe the mean(s) by which the wastewater from the treatment works is discharged or transported to the other treatment works (e.g., tank truck, pipe).

N/A

If transport is by a party other than the applicant, provide:

Transporter name: _____

Mailing Address: _____

_____

Contact person: _____

Title: _____

Telephone number: _____

For each treatment works that receives this discharge, provide the following:

Name: _____

Mailing Address: _____

_____

Contact person: _____

Title: _____

Telephone number: _____

If known, provide the NPDES permit number of the treatment works that receives this discharge. _____

Provide the average daily flow rate from the treatment works into the receiving facility. _____ mgd

e. Does the treatment works discharge or dispose of its wastewater in a manner not included in A.8.a through A.8.d above (e.g., underground percolation, well injection)? _____ Yes ✓ No

If yes, provide the following for each disposal method:

Description of method (including location and size of site(s) if applicable):

N/A

Annual daily volume disposed of by this method: _____

Is disposal through this method _____ continuous or _____ intermittent?

WASTEWATER DISCHARGES:

If you answered "yes" to question A.8.a, complete questions A.9 through A.12 **once for each outfall** (including bypass points) through which effluent is discharged. Do not include information on combined sewer overflows in this section. **If you answered "no" to question A.8.a**, go to Part B, "Additional Application Information for Applicants with a Design Flow Greater than or Equal to 0.1 mgd."

A.9. Description of Outfall.

a. Outfall number 001

b. Location

Hoover (City or town, if applicable)	35244 (Zip Code)
Jefferson (County)	Alabama (State)
N 33Deg-22Min-9.5Sec (Latitude)	W 86Deg-47Min-44.5Sec (Longitude)

c. Distance from shore (if applicable) _____ ft.

d. Depth below surface (if applicable) _____ ft.

e. Average daily flow rate 1.12 mgd

f. Does this outfall have either an intermittent or a periodic discharge? _____ Yes ✓ No (go to A.9.g.)

If yes, provide the following information:

Number of times per year discharge occurs: _____

Average duration of each discharge: _____

Average flow per discharge: _____ mgd

Months in which discharge occurs: _____

g. Is outfall equipped with a diffuser? _____ Yes ✓ No

A.10. Description of Receiving Waters.

a. Name of receiving water Cahaba River

b. Name of watershed (if known) Cahaba River

United States Soil Conservation Service 14-digit watershed code (if known): unknown

c. Name of State Management/River Basin (if known): Cahaba River

United States Geological Survey 8-digit hydrologic cataloging unit code (if known): unknown

d. Critical low flow of receiving stream (if applicable):
acute _____ cfs chronic _____ cfs

e. Total hardness of receiving stream at critical low flow (if applicable): _____ mg/l of $CaCO_3$

FACILITY NAME AND PERMIT NUMBER:
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A.11. Description of Treatment.

a. What levels of treatment are provided? Check all that apply.

✓ Primary ✓ Secondary
✓ Advanced _____ Other. Describe: _____

b. Indicate the following removal rates (as applicable):

Design BOD_5 removal or Design $CBOD_5$ removal	98.00	%
Design SS removal	95.00	%
Design P removal	93.00	%
Design N removal	96.00	%
Other _____	_____	%

c. What type of disinfection is used for the effluent from this outfall? If disinfection varies by season, please describe.

Ultraviolet Disinfection

If disinfection is by chlorination, is dechlorination used for this outfall? _____ Yes _____ No

d. Does the treatment plant have post aeration? _____ Yes ✓ No

A.12. Effluent Testing Information. All Applicants that discharge to waters of the US must provide effluent testing data for the following parameters. Provide the indicated effluent testing required by the permitting authority for each outfall through which effluent is discharged. Do not include information on combined sewer overflows in this section. All information reported must be based on data collected through analysis conducted using 40 CFR Part 136 methods. In addition, this data must comply with QA/QC requirements of 40 CFR Part 136 and other appropriate QA/QC requirements for standard methods for analytes not addressed by 40 CFR Part 136. At a minimum, effluent testing data must be based on at least three samples and must be no more than four and one-half years apart.

Outfall number: 001

PARAMETER	MAXIMUM DAILY VALUE		AVERAGE DAILY VALUE		
	Value	Units	Value	Units	Number of Samples
pH (Minimum)	6.60	s.u.			
pH (Maximum)	7.90	s.u.			
Flow Rate	3.84	mgd	1.12	mgd	364.00
Temperature (Winter)	22.80	Deg C	16.90	Deg C	364.00
Temperature (Summer)	27.60	Deg C	24.30	Deg C	364.00

* For pH please report a minimum and a maximum daily value

POLLUTANT		MAXIMUM DAILY DISCHARGE		AVERAGE DAILY DISCHARGE			ANALYTICAL METHOD	ML / MDL
		Conc.	Units	Conc.	Units	Number of Samples		
CONVENTIONAL AND NONCONVENTIONAL COMPOUNDS.								
BIOCHEMICAL OXYGEN	BOD-5		N/A		N/A		N/A	N/A
DEMAND (Report one)	CBOD-5	4.00	mg/l	0.90	mg/l	156.00	5210B	0.1
FECAL COLIFORM		550.00	#/100ml	25.00	#/100ml	156.00	9222D	1.0
TOTAL SUSPENDED SOLIDS (TSS)		8.00	mg/l	1.00	mg/l	156.00	2540D	0.1

END OF PART A.
REFER TO THE APPLICATION OVERVIEW TO DETERMINE WHICH OTHER PARTS OF FORM 2A YOU MUST COMPLETE

BASIC APPLICATION INFORMATION

PART B. ADDITIONAL APPLICATION INFORMATION FOR APPLICANTS WITH A DESIGN FLOW GREATER THAN OR EQUAL TO 0.1 MGD (100,000 gallons per day).

All applicants with a design flow rate ≥ 0.1 mgd must answer questions B.1 through B.6. All others go to Part C (Certification).

B.1. Inflow and Infiltration. Estimate the average number of gallons per day that flow into the treatment works from inflow and/or infiltration.

200,000.00 gpd

Briefly explain any steps underway or planned to minimize inflow and infiltration.

The City is continuing to clean and video gravity sewers to document defects to be corrected in future projects.

B.2. Topographic Map. Attach to this application a topographic map of the area extending at least one mile beyond facility property boundaries. This map must show the outline of the facility and the following information. (You may submit more than one map if one map does not show the entire area.)

a. The area surrounding the treatment plant, including all unit processes.

b. The major pipes or other structures through which wastewater enters the treatment works and the pipes or other structures through which treated wastewater is discharged from the treatment plant. Include outfalls from bypass piping, if applicable.

c. Each well where wastewater from the treatment plant is injected underground.

d. Wells, springs, other surface water bodies, and drinking water wells that are: 1) within 1/4 mile of the property boundaries of the treatment works, and 2) listed in public record or otherwise known to the applicant.

e. Any areas where the sewage sludge produced by the treatment works is stored, treated, or disposed.

f. If the treatment works receives waste that is classified as hazardous under the Resource Conservation and Recovery Act (RCRA) by truck, rail, or special pipe, show on the map where that hazardous waste enters the treatment works and where it is treated, stored, and/or disposed.

B.3. Process Flow Diagram or Schematic. Provide a diagram showing the processes of the treatment plant, including all bypass piping and all backup power sources or redundancy in the system. Also provide a water balance showing all treatment units, including disinfection (e.g, chlorination and dechlorination). The water balance must show daily average flow rates at influent and discharge points and approximate daily flow rates between treatment units. Include a brief narrative description of the diagram.

B.4. Operation/Maintenance Performed by Contractor(s).

Are any operational or maintenance aspects (related to wastewater treatment and effluent quality) of the treatment works the responsibility of a contractor? ✓ Yes ____ No

If yes, list the name, address, telephone number, and status of each contractor and describe the contractor's responsibilities (attach additional pages if necessary).

Name: Clearwater Solutions, LLC

Mailing Address: 219 South 8th Street Suite 3
Opelika, AL 36801

Telephone Number: (334) 532-3201

Responsibilities of Contractor: Operation and maintenance of the WWTP, pumping stations and collection sewers.

B.5. Scheduled Improvements and Schedules of Implementation. Provide information on any uncompleted implementation schedule or uncompleted plans for improvements that will affect the wastewater treatment, effluent quality, or design capacity of the treatment works. If the treatment works has several different implementation schedules or is planning several improvements, submit separate responses to question B.5 for each. (If none, go to question B.6.)

a. List the outfall number (assigned in question A.9) for each outfall that is covered by this implementation schedule.

None

b. Indicate whether the planned improvements or implementation schedule are required by local, State, or Federal agencies.

____ Yes ✓ No

c If the answer to B.5.b is "Yes," briefly describe, including new maximum daily inflow rate (if applicable).

N/A

d. Provide dates imposed by any compliance schedule or any actual dates of completion for the implementation steps listed below, as applicable. For improvements planned independently of local, State, or Federal agencies, indicate planned or actual completion dates, as applicable. Indicate dates as accurately as possible.

Implementation Stage	Schedule MM / DD / YYYY	Actual Completion MM / DD / YYYY
– Begin construction	___/___/_____	___/___/_____
– End construction	___/___/_____	___/___/_____
– Begin discharge	___/___/_____	___/___/_____
– Attain operational level	___/___/_____	___/___/_____

e. Have appropriate permits/clearances concerning other Federal/State requirements been obtained? ____Yes ____No

Describe briefly: N/A

B.6. EFFLUENT TESTING DATA (GREATER THAN O.1 MGD ONLY).

Applicants that discharge to waters of the US must provide effluent testing data for the following parameters. Provide the indicated effluent testing required by the permitting authority for each outfall through which effluent is discharged. Do not include information on combined sewer overflows in this section. All information reported must be based on data collected through analysis conducted using 40 CFR Part 136 methods. In addition, this data must comply with QA/QC requirements of 40 CFR Part 136 and other appropriate QA/QC requirements for standard methods for analytes not addressed by 40 CFR Part 136. At a minimum, effluent testing data must be based on at least three pollutant scans and must be no more than four and one-half years old.

Outfall Number: 001

POLLUTANT	MAXIMUM DAILY DISCHARGE		AVERAGE DAILY DISCHARGE			ANALYTICAL METHOD	ML / MDL
	Conc.	Units	Conc.	Units	Number of Samples		
CONVENTIONAL AND NONCONVENTIONAL COMPOUNDS.							
AMMONIA (as N)	2.80	mg/l	0.14	mg/l	156.00	4500NH3D	0.1
CHLORINE (TOTAL RESIDUAL, TRC)		N/A		N/A		N/A	N/A
DISSOLVED OXYGEN	14.98	mg/l	8.70	mg/l	364.00	4500-OG	0.01
TOTAL KJELDAHL NITROGEN (TKN)	3.60	mg/l	0.33	mg/l	156.00	4500NORGB	0.1
NITRATE PLUS NITRITE NITROGEN	16.50	mg/l	11.90	mg/l	156.00	4500NO2/NO3D	0.1
OIL and GREASE		N/A		N/A		N/A	N/A
PHOSPHORUS (Total)	0.67	mg/l	0.13	mg/l	156.00	4500PB5	0.1
TOTAL DISSOLVED SOLIDS (TDS)		N/A		N/A		N/A	N/A
OTHER							

END OF PART B.
REFER TO THE APPLICATION OVERVIEW TO DETERMINE WHICH OTHER PARTS OF FORM 2A YOU MUST COMPLETE

FACILITY NAME AND PERMIT NUMBER:
City of Hoover Riverchase WWTP AL0041653

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BASIC APPLICATION INFORMATION

PART C. CERTIFICATION

All applicants must complete the Certification Section. Refer to instructions to determine who is an officer for the purposes of this certification. All applicants must complete all applicable sections of Form 2A, as explained in the Application Overview. Indicate below which parts of Form 2A you have completed and are submitting. By signing this certification statement, applicants confirm that they have reviewed Form 2A and have completed all sections that apply to the facility for which this application is submitted.

Indicate which parts of Form 2A you have completed and are submitting:

✓ Basic Application Information packet

Supplemental Application Information packet:

✓ Part D (Expanded Effluent Testing Data)

✓ Part E (Toxicity Testing: Biomonitoring Data)

____ Part F (Industrial User Discharges and RCRA/CERCLA Wastes)

____ Part G (Combined Sewer Systems)

ALL APPLICANTS MUST COMPLETE THE FOLLOWING CERTIFICATION.

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Name and official title: Allan Rice, City Administrator

Signature: 

Telephone number: (205) 444-7541

Date signed: 9/29/12

Upon request of the permitting authority, you must submit any other information necessary to assess wastewater treatment practices at the treatment works or identify appropriate permitting requirements.

SEND COMPLETED FORMS TO:

FACILITY NAME AND PERMIT NUMBER:
City of Hoover Riverchase WWTP / AL0041653

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SUPPLEMENTAL APPLICATION INFORMATION

PART D. EXPANDED EFFLUENT TESTING DATA

Refer to the directions on the cover page to determine whether this section applies to the treatment works.

Effluent Testing: 1.0 mgd and Pretreatment Treatment Works. If the treatment works has a design flow greater than or equal to 1.0 mgd or it has (or is required to have) a pretreatment program, or is otherwise required by the permitting authority to provide the data, then provide effluent testing data for the following pollutants. Provide the indicated effluent testing information and any other information required by the permitting authority for each outfall through which effluent is discharged. Do not include information on combined sewer overflows in this section. All information reported must be based on data collected through analyses conducted using 40 CFR Part 136 methods. In addition, these data must comply with QA/QC requirements of 40 CFR Part 136 and other appropriate QA/QC requirements for standard methods for analytes not addressed by 40 CFR Part 136. Indicate in the blank rows provided below any data you may have on pollutants not specifically listed in this form. At a minimum, effluent testing data must be based on at least three pollutant scans and must be no more than four and one-half years old.

Outfall number: 001 (Complete once for each outfall discharging effluent to waters of the United States.)

POLLUTANT	MAXIMUM DAILY DISCHARGE				AVERAGE DAILY DISCHARGE					ANALYTICAL METHOD	ML/ MDL
	Conc.	Units	Mass	Units	Conc.	Units	Mass	Units	Number of Samples		
METALS (TOTAL RECOVERABLE), CYANIDE, PHENOLS, AND HARDNESS.											
ANTIMONY	<0.005	mg/l			<0.005	mg/l			3	E200.9	0.005
ARSENIC	<0.001	mg/l			<0.001	mg/l			3	E200.9	0.001
BERYLLIUM	<0.001	mg/l			<0.001	mg/l			3	E200.7	0.001
CADMIUM	<0.001	mg/l			<0.001	mg/l			3	"	0.001
CHROMIUM	<0.010	mg/l			<0.010	mg/l			3	"	0.010
COPPER	0.0110	mg/l			0.0070	mg/l			3	"	0.010
LEAD	<0.005	mg/l			<0.005	mg/l			3	E200.7	0.005
MERCURY	<0.500	mg/l			<0.500	mg/l			3	E1631	0.50
NICKEL	<0.050	mg/l			<0.050	mg/l			3	E200.7	0.050
SELENIUM	<0.005	mg/l			<0.005	mg/l			3	E200.9	0.005
SILVER	<0.001	mg/l			<0.001	mg/l			3	"	0.001
THALLIUM	<0.001	mg/l			<0.001	mg/l			3	E200.9	0.001
ZINC	<0.050	mg/l			<0.050	mg/l			3	E200.7	0.050
CYANIDE	<0.010	mg/l			<0.010	mg/l			3	M4500-CN CE	0.010
TOTAL PHENOLIC COMPOUNDS	<0.100	mg/l			<0.100	mg/l			3	M5330 BD 2005	0.10
HARDNESS (AS $CaCO_3$)	103.00	mg/l			102.67	mg/l			3	E200.7	1.00
Use this space (or a separate sheet) to provide information on other metals requested by the permit writer.											

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POLLUTANT	MAXIMUM DAILY DISCHARGE				AVERAGE DAILY DISCHARGE					ANALYTICAL METHOD	ML/ MDL
	Conc.	Units	Mass	Units	Conc.	Units	Mass	Units	Number of Samples		
VOLATILE ORGANIC COMPOUNDS.											
ACROLEIN	<0.100	mg/l			<0.100	mg/l			3	E624	0.100
ACRYLONITRILE	<0.100	mg/l			<0.100	mg/l			3	"	0.100
BENZENE	<0.005	mg/l			<0.005	mg/l			3	"	0.005
BROMOFORM	<0.005	mg/l			<0.005	mg/l			3	"	0.005
CARBON TETRACHLORIDE	<0.005	mg/l			<0.005	mg/l			3	"	0.005
CLOROBENZENE	<0.005	mg/l			<0.005	mg/l			3	"	0.005
CHLORODIBROMO-METHANE	<0.005	mg/l			<0.005	mg/l			3	"	0.005
CHLOROETHANE	<0.010	mg/l			<0.010	mg/l			3	"	0.010
2-CHLORO-ETHYLVINYL ETHER	<0.010	mg/l			<0.010	mg/l			3	"	0.010
CHLOROFORM	<0.005	mg/l			<0.005	mg/l			3	"	0.010
DICHLOROBROMO-METHANE	<0.005	mg/l			<0.005	mg/l			3	"	0.010
1,1-DICHLOROETHANE	<0.005	mg/l			<0.005	mg/l			3	"	0.005
1,2-DICHLOROETHANE	<0.005	mg/l			<0.005	mg/l			3	"	0.005
TRANS-1,2-DICHLORO-ETHYLENE	<0.005	mg/l			<0.005	mg/l			3	"	0.005
1,1-DICHLOROETHYLENE	<0.005	mg/l			<0.005	mg/l			3	"	0.005
1,2-DICHLOROPROPANE	<0.005	mg/l			<0.005	mg/l			3	"	0.005
1,3-DICHLORO-PROPYLENE	<0.005	mg/l			<0.005	mg/l			3	"	0.005
ETHYLBENZENE	<0.005	mg/l			<0.005	mg/l			3	"	0.005
METHYL BROMIDE	<0.010	mg/l			<0.010	mg/l			3	"	0.010
METHYL CHLORIDE	<0.005	mg/l			<0.005	mg/l			3	"	0.005
METHYLENE CHLORIDE	<0.005	mg/l			<0.005	mg/l			3	"	0.005
1,1,2,2-TETRACHLORO-ETHANE	<0.005	mg/l			<0.005	mg/l			3	"	0.005
TETRACHLORO-ETHYLENE	<0.005	mg/l			<0.005	mg/l			3	"	0.005
TOLUENE	<0.005	mg/l			<0.005	mg/l			3	E624	0.005

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POLLUTANT	MAXIMUM DAILY DISCHARGE				AVERAGE DAILY DISCHARGE					ANALYTICAL METHOD	ML/ MDL
	Conc.	Units	Mass	Units	Conc.	Units	Mass	Units	Number of Samples		
1,1,1-TRICHLOROETHANE	<0.005	mg/l			<0.005	mg/l			3	E624	0.005
1,1,2-TRICHLOROETHANE	<0.005	mg/l			<0.005	mg/l			3	"	0.005
TRICHLORETHYLENE	<0.005	mg/l			<0.005	mg/l			3	"	0.005
VINYL CHLORIDE	<0.002	mg/l			<0.002	mg/l			3	E624	0.002
Use this space (or a separate sheet) to provide information on other volatile organic compounds requested by the permit writer.											
ACID-EXTRACTABLE COMPOUNDS											
P-CHLORO-M-CRESOL	<0.010	mg/l			<0.010	mg/l			3	E625	0.010
2-CHLOROPHENOL	<0.010	mg/l			<0.010	mg/l			3	"	0.010
2,4-DICHLOROPHENOL	<0.010	mg/l			<0.010	mg/l			3	"	0.010
2,4-DIMETHYLPHENOL	<0.010	mg/l			<0.010	mg/l			3	"	0.010
4,6-DINITRO-O-CRESOL	<0.051	mg/l			<0.051	mg/l			3	"	
2,4-DINITROPHENOL	<0.051	mg/l			<0.051	mg/l			3	"	0.051
2-NITROPHENOL	<0.010	mg/l			<0.010	mg/l			3	"	0.010
4-NITROPHENOL	<0.051	mg/l			<0.051	mg/l			3	"	0.051
PENTACHLOROPHENOL	<0.026	mg/l			<0.026	mg/l			3	"	0.026
PHENOL	<0.010	mg/l			<0.010	mg/l			3	"	0.010
2,4,6-TRICHLOROPHENOL	<0.010	mg/l			<0.010	mg/l			3	E625	0.010
Use this space (or a separate sheet) to provide information on other acid-extractable compounds requested by the permit writer.											
BASE-NEUTRAL COMPOUNDS.											
ACENAPHTHENE	<0.010	mg/l			<0.010	mg/l			3	E625	0.010
ACENAPHTHYLENE	<0.010	mg/l			<0.010	mg/l			3	"	0.010
ANTHRACENE	<0.010	mg/l			<0.010	mg/l			3	"	0.010
BENZIDINE	<0.051	mg/l			<0.051	mg/l			3	"	0.051
BENZO(A)ANTHRACENE	<0.010	mg/l			<0.010	mg/l			3	"	0.010
BENZO(A)PYRENE	<0.010	mg/l			<0.010	mg/l			3	E625	0.010

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Outfall number: 001 (Complete once for each outfall discharging effluent to waters of the United States.)

POLLUTANT	MAXIMUM DAILY DISCHARGE				AVERAGE DAILY DISCHARGE					ANALYTICAL METHOD	ML/ MDL
	Conc.	Units	Mass	Units	Conc.	Units	Mass	Units	Number of Samples		
3,4 BENZO-FLUORANTHENE	<0.010	mg/l			<0.010	mg/l			3	E625	0.010
BENZO(GHI)PERYLENE	<0.010	mg/l			<0.010	mg/l			3	"	0.010
BENZO(K)FLUORANTHENE	<0.010	mg/l			<0.010	mg/l			3	"	0.010
BIS (2-CHLOROETHOXY) METHANE	<0.010	mg/l			<0.010	mg/l			3	"	0.01000
BIS (2-CHLOROETHYL)-ETHER	<0.010	mg/l			<0.010	mg/l			3	"	0.010
BIS (2-CHLOROISO-PROPYL) ETHER	<0.010	mg/l			<0.010	mg/l			3	"	0.01000
BIS (2-ETHYLHEXYL) PHTHALATE	0.018	mg/l			0.015	mg/l			3	"	0.010
4-BROMOPHENYL PHENYL ETHER	<0.010	mg/l			<0.010	mg/l			3	"	0.01000
BUTYL BENZYL PHTHALATE	<0.010	mg/l			<0.010	mg/l			3	"	0.010
2-CHLORONAPHTHALENE	<0.010	mg/l			<0.010	mg/l			3	"	0.010
4-CHLORPHENYL PHENYL ETHER	<0.010	mg/l			<0.010	mg/l			3	"	0.010
CHRYSENE	<0.010	mg/l			<0.010	mg/l			3	"	0.010
DI-N-BUTYL PHTHALATE	<0.010	mg/l			<0.010	mg/l			3	"	0.010
DI-N-OCTYL PHTHALATE	<0.010	mg/l			<0.010	mg/l			3	"	0.010
DIBENZO(A,H) ANTHRACENE	<0.010	mg/l			<0.010	mg/l			3	E625	0.010
1,2-DICHLOROBENZENE	<0.005	mg/l			<0.005	mg/l			3	E624	0.005
1,3-DICHLOROBENZENE	<0.005	mg/l			<0.005	mg/l			3	"	0.005
1,4-DICHLOROBENZENE	<0.005	mg/l			<0.005	mg/l			3	E624	0.005
3,3-DICHLOROBENZIDINE	<0.020	mg/l			<0.020	mg/l			3	E625	0.020
DIETHYL PHTHALATE	<0.010	mg/l			<0.010	mg/l			3	"	0.010
DIMETHYL PHTHALATE	<0.010	mg/l			<0.010	mg/l			3	"	0.010
2,4-DINITROTOLUENE	<0.010	mg/l			<0.010	mg/l			3	"	0.010
2,6-DINITROTOLUENE	<0.010	mg/l			<0.010	mg/l			3	"	0.010
1,2-DIPHENYLHYDRAZINE	<0.051	mg/l			<0.051	mg/l			3	E625	0.051

FACILITY NAME AND PERMIT NUMBER:
City of Hoover Riverchase WWTP / AL0041653

Form Approved 1/14/99
OMB Number 2040-0086

Outfall number: 001 (Complete once for each outfall discharging effluent to waters of the United States.)

POLLUTANT	MAXIMUM DAILY DISCHARGE				AVERAGE DAILY DISCHARGE					ANALYTICAL METHOD	ML/ MDL
	Conc.	Units	Mass	Units	Conc.	Units	Mass	Units	Number of Samples		
FLUORANTHENE	<0.010	mg/l			<0.010	mg/l			3	E625	0.010
FLUORENE	<0.010	mg/l			<0.010	mg/l			3	"	0.010
HEXACHLOROBENZENE	<0.010	mg/l			<0.010	mg/l			3	"	0.010
HEXACHLOROBUTADIENE	<0.010	mg/l			<0.010	mg/l			3	"	0.010
HEXACHLOROCYCLO-PENTADIENE	<0.010	mg/l			<0.010	mg/l			3	"	0.010
HEXACHLOROETHANE	<0.010	mg/l			<0.010	mg/l			3	"	0.010
INDENO(1,2,3-CD)PYRENE	<0.010	mg/l			<0.010	mg/l			3	"	0.010
ISOPHORONE	<0.010	mg/l			<0.010	mg/l			3	"	0.010
NAPHTHALENE	<0.010	mg/l			<0.010	mg/l			3	"	0.010
NITROBENZENE	<0.010	mg/l			<0.010	mg/l			3		0.010
N-NITROSODI-N-PROPYLAMINE	<0.010	mg/l			<0.010	mg/l			3	"	0.010
N-NITROSODI- METHYLAMINE	<0.010	mg/l			<0.010	mg/l			3	"	0.010
N-NITROSODI-PHENYLAMINE	<0.010	mg/l			<0.010	mg/l			3	"	0.010
PHENANTHRENE	<0.010	mg/l			<0.010	mg/l			3	"	0.010
PYRENE	<0.010	mg/l			<0.010	mg/l			3	"	0.010
1,2,4-TRICHLOROBENZENE	<0.010	mg/l			<0.010	mg/l			3	E625	0.010

Use this space (or a separate sheet) to provide information on other base-neutral compounds requested by the permit writer.

Use this space (or a separate sheet) to provide information on other pollutants (e.g., pesticides) requested by the permit writer.

END OF PART D.
REFER TO THE APPLICATION OVERVIEW TO DETERMINE WHICH OTHER PARTS OF FORM 2A YOU MUST COMPLETE

FACILITY NAME AND PERMIT NUMBER:
City of Hoover Riverchase WWTP AL0041653

Form Approved 1/14/99
OMB Number 2040-0086

SUPPLEMENTAL APPLICATION INFORMATION

PART E. TOXICITY TESTING DATA

POTWs meeting one or more of the following criteria must provide the results of whole effluent toxicity tests for acute or chronic toxicity for each of the facility's discharge points: 1) POTWs with a design flow rate greater than or equal to 1.0 mgd; 2) POTWs with a pretreatment program (or those that are required to have one under 40 CFR Part 403); or 3) POTWs required by the permitting authority to submit data for these parameters.

- At a minimum, these results must include quarterly testing for a 12-month period within the past 1 year using multiple species (minimum of two species), or the results from four tests performed at least annually in the four and one-half years prior to the application, provided the results show no appreciable toxicity, and testing for acute and/or chronic toxicity, depending on the range of receiving water dilution. Do not include information on combined sewer overflows in this section. All information reported must be based on data collected through analysis conducted using 40 CFR Part 136 methods. In addition, this data must comply with QA/QC requirements of 40 CFR Part 136 and other appropriate QA/QC requirements for standard methods for analytes not addressed by 40 CFR Part 136.
- In addition, submit the results of any other whole effluent toxicity tests from the past four and one-half years. If a whole effluent toxicity test conducted during the past four and one-half years revealed toxicity, provide any information on the cause of the toxicity or any results of a toxicity reduction evaluation, if one was conducted.
- If you have already submitted any of the information requested in Part E, you need not submit it again. Rather, provide the information requested in question E.4 for previously submitted information. If EPA methods were not used, report the reasons for using alternate methods. If test summaries are available that contain all of the information requested below, they may be submitted in place of Part E.

If no biomonitoring data is required, do not complete Part E. Refer to the Application Overview for directions on which other sections of the form to complete.

E.1. Required Tests.

Indicate the number of whole effluent toxicity tests conducted in the past four and one-half years.

✓ chronic ____ acute

E.2. Individual Test Data. Complete the following chart for each whole effluent toxicity test conducted in the last four and one-half years. Allow one column per test (where each species constitutes a test). Copy this page if more than three tests are being reported.

	Test number:_____	Test number:_____	Test number:_____
a. Test information.			
Test species & test method number	Go to E.4.		
Age at initiation of test			
Outfall number			
Dates sample collected			
Date test started			
Duration			
b. Give toxicity test methods followed.			
Manual title			
Edition number and year of publication			
Page number(s)			
c. Give the sample collection method(s) used. For multiple grab samples, indicate the number of grab samples used.			
24-Hour composite			
Grab			
d. Indicate where the sample was taken in relation to disinfection. (Check all that apply for each)			
Before disinfection			
After disinfection			
After dechlorination			

	Test number:_____	Test number:_____	Test number:_____
e. Describe the point in the treatment process at which the sample was collected.			
Sample was collected:			
f. For each test, include whether the test was intended to assess chronic toxicity, acute toxicity, or both.			
Chronic toxicity			
Acute toxicity			
g. Provide the type of test performed.			
Static			
Static-renewal			
Flow-through			
h. Source of dilution water. If laboratory water, specify type; if receiving water, specify source.			
Laboratory water			
Receiving water			
i. Type of dilution water. It salt water, specify "natural" or type of artificial sea salts or brine used.			
Fresh water			
Salt water			
j. Give the percentage effluent used for all concentrations in the test series.			
k. Parameters measured during the test. (State whether parameter meets test method specifications)			
pH			
Salinity			
Temperature			
Ammonia			
Dissolved oxygen			
l. Test Results.			
Acute:			
Percent survival in 100% effluent	%	%	%
LC_{50}			
95% C.I.	%	%	%
Control percent survival	%	%	%
Other (describe)			

Chronic:			
NOEC	%	%	%
IC_{25}	%	%	%
Control percent survival	%	%	%
Other (describe)			

m. Quality Control/Quality Assurance.			
Is reference toxicant data available?			
Was reference toxicant test within acceptable bounds?			
What date was reference toxicant test run (MM/DD/YYYY)?			
Other (describe)			

E.3. Toxicity Reduction Evaluation. Is the treatment works involved in a Toxicity Reduction Evaluation?

____Yes____No If yes, describe: _____

_____

_____

E.4. Summary of Submitted Biomonitoring Test Information. If you have submitted biomonitoring test information, or information regarding the cause of toxicity, within the past four and one-half years, provide the dates the information was submitted to the permitting authority and a summary of the results.

Date submitted: _____ (MM/DD/YYYY)

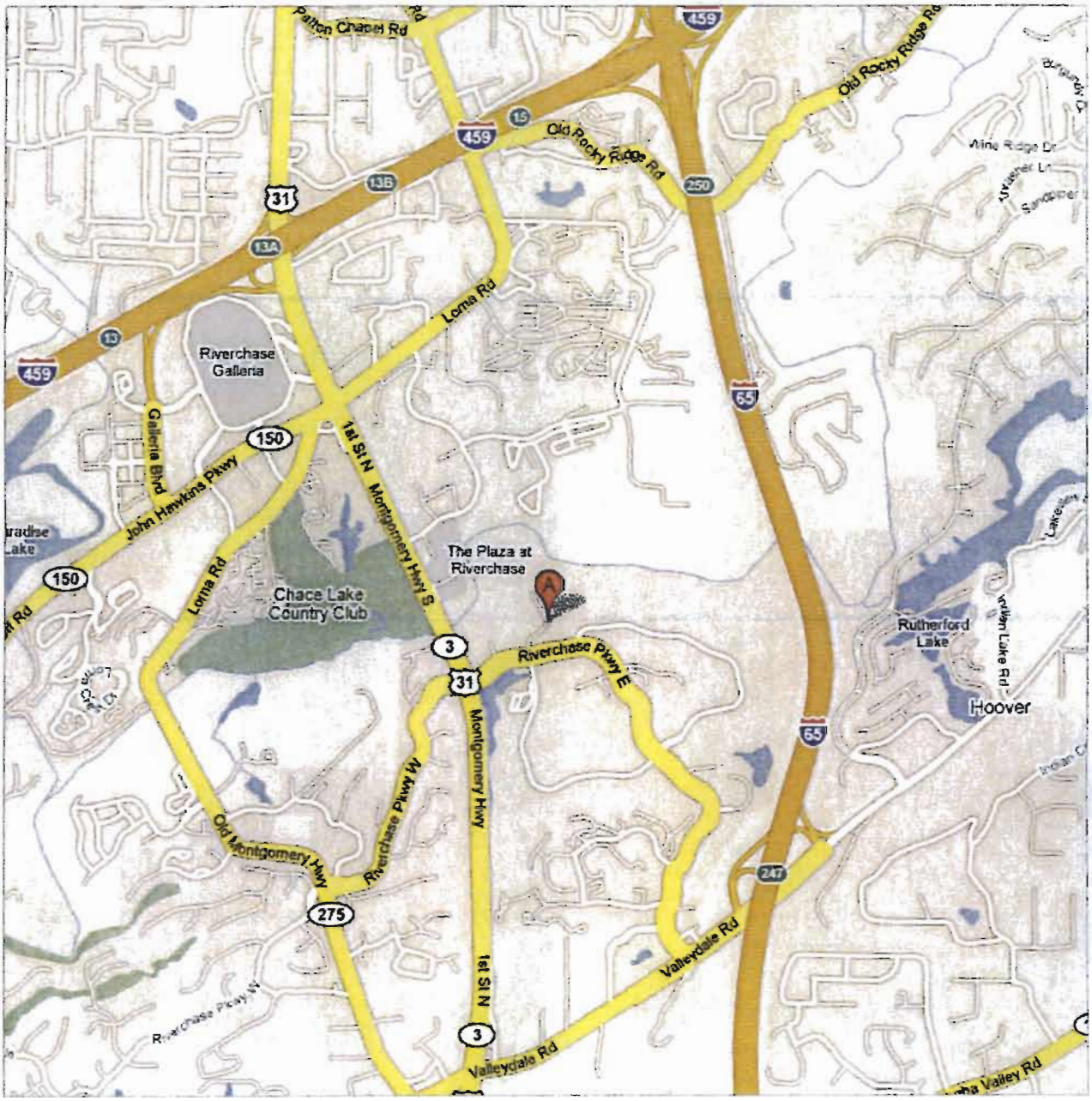
Summary of results: (see instructions)

Toxicity test information has been submitted to ADEM on an annual basis over the past four and one-half years with all passing results.

END OF PART E.
REFER TO THE APPLICATION OVERVIEW TO DETERMINE WHICH OTHER PARTS OF FORM 2A YOU MUST COMPLETE.

Google Maps

Address **2004 Parkway River Rd**
Birmingham, AL 35244




Riverchase WWTP
2004 Parkway River Road
Hoover, AL 35244
RIVERHAVEN DR
RIVERHAVEN CIR
DANIELS RD
RIME VILLAGE DR
PARKWAY RIVER RD
PARKWAY OFFICE CIR
RIVERCHASE PKWY E
PRIVATE
ARROWLEAF DR
WILDFLOWER DR
GARDENBROOK TR
N-165

PLANT DRAINAGE PUMPING STATION
EFFLUENT FLOWMETER VAULT
24" OUTFALL
24" EFFLUENT 3.0 MGD
SOUTH LAKE .50 MGD
10" INFLUENT
EFFLUENT SAMPLE
U.V. DISINFECTION
FILTER UNITS
EFFLUENT AREA ELECT. BLDG.
FLOCCULATION TANK
RAPID MIXER
1.525 MGD OUT
CLARIFIER No. 3
SCUM PUMPING STATION
0.025 MGD
1.425 MGD
CLARIFIER No. 1
SPLITTER BOX
6" SCUM
0.025 MGD
0.40 MGD
10" RAS/WAS
0.05 MGD
4" SCUM
0.70 MGD
10" RAS/WAS
CLARIFIER No. 2
0.40 MGD
10" RAS/WAS
0.80 MGD
LIFT STATION
FROM SOCCER FIELDS
RAS/WAS PUMPING STATION
GENERATOR
FUEL STORAGE TANK
WEST SLUDGE DRYING BEDS
EAST SLUDGE DRYING BEDS
6" WAS
0.0136 MGD
CENTRIFUGE
TO BEDS OR CENTRIFUGE
OXIDATION BASIN No. 1
NITRATE RECYCLE PUMPS
4" FILTER BACKWASH
OXIDATION BASIN No. 2
ANOXIC BASIN No. 2
ANOXIC BASIN No. 1
ANAEROBIC BASINS
2.25 MGD
3.00 MGD
PARSHALL FLUME
INFLUENT AREA ELECT. BLDG.
HEADWORKS
INFLUENT SAMPLE
10" RAS 1.50 MGD
10" RAS/WAS DRAIN
1.50 MGD
10" RAS
HEADWORKS BYPASS TO MANUAL SCREEN
3.00 MGD
10" INFLUENT
12" INFLUENT
0.14 MGD
6" WAS
FLOW IN EXCESS OF 5.0 MGD
MUNICIPAL BUILDING
PUMPS
SURGE BASIN
DIGESTER BLOWER BUILDING
SLUDGE PUMPING STATION
8" AIR
AEROBIC DIGESTER
8" OVERFLOW 0.05 MGD
4" SCUM 0.05 MGD
RIVERCHASE 2.50 MGD

310 Emery Drive West
Trace Crossings
Hoover, Alabama 35244
P.O. Box 360134
Hoover, Alabama 35236
(205) 982-9466 / (205) 982-9650 Fax
www.garylowen.com

GARY L. OWEN AND ASSOCIATES, INC.
CONSULTING ENGINEERS

Hoover

PROPRIETOR
CITY OF HOOVER
HOOVER, ALABAMA

PROJECT TITLE
RIVERCHASE WWTP EXPANSION

DRAWING DESCRIPTION
PROCESS FLOW DIAGRAM

DESIGNED BY	CHECKED BY
GLO	GLO

DRAWN BY
KBF

SCALE
NO SCALE

DRAWING NUMBER
N/A

SHEET NUMBER
1 OF 1

PROJECT NUMBER
97900

DATE
FEBRUARY, 2009

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ensboro Avenue
rawer 1128 (35403)
caloosa, AL 35401

205.345.0816 tel
205.343.0635 fax
www.TTLINC.com

Date: 14-Sep-17

CLIENT: Hoover Public Center
Project: Riverchase WWTP - EPA Form 2A-Part D - Sample #1
Lab Order: 170821010

Lab ID: 170821010-001
Collection Date: 08/21/2017 10:10
Client Sample ID: Effluent - Composite
Matrix: Aqueous

Analyses	Result	Limit	Units	DF	Date Analyzed
SILVER, TREC, BY GFAA		**E200.9**	Prep:(E200.9)	08/22/2017 9:00	Analyst: **TBC**
Silver, as Ag	< 0.001	0.001	mg/L	1	08/29/2017 10:41
ARSENIC, TREC FOR NPDES		**E200.9**	Prep:		Analyst: **TBC**
Arsenic, as As	< 0.001	0.001	mg/L	1	09/12/2017 15:21
TOTAL HARDNESS		**E200.7**	Prep:(E200.7)	08/22/2017 9:00	Analyst: **SFC**
Hardness, Calcium/Magnesium (As CaCO3)	162	1.00	mg/L	1	08/30/2017 11:39
Hardness, Calcium (As CaCO3)	103	1.00	mg/L	1	08/30/2017 11:39
Hardness, Magnesium (As CaCO3)	59.4	1.00	mg/L	1	08/30/2017 11:39
ICP METALS, TOTAL RECOVERABLE		**E200.7**	Prep:(E4.1.1)	08/22/2017 9:00	Analyst: **SFC**
Beryllium, as Be	< 0.001	0.001	mg/L	1	09/07/2017 12:02
Cadmium, as Cd	< 0.001	0.001	mg/L	1	09/07/2017 12:02
Chromium, as Cr	< 0.010	0.010	mg/L	1	09/07/2017 12:02
Copper, as Cu	0.010	0.010	mg/L	1	09/07/2017 12:02
Lead, as Pb	< 0.005	0.005	mg/L	1	09/07/2017 12:02
Nickel, as Ni	< 0.050	0.050	mg/L	1	09/07/2017 12:02
Zinc, as Zn	< 0.050	0.050	mg/L	1	09/07/2017 12:02
ANTIMONY, TREC FOR NPDES		**E200.9**	Prep:		Analyst: **TBC**
Antimony, as Sb	< 0.005	0.005	mg/L	1	09/13/2017 10:08
SELENIUM, TREC FOR NPDES		**E200.9**	Prep:		Analyst: **TBC**
Selenium, as Se	< 0.005	0.005	mg/L	1	08/30/2017 12:35
THALLIUM,TOTAL RECOVERABLE FOR		**E200.9**	Prep:		Analyst: **TBC**
Thallium, as Tl	< 0.001	0.001	mg/L	1	08/25/2017 13:20
SEMIVOLATILE ORGANICS BY 625		**E625**	Prep:(E625)	08/22/2017 14:31	Analyst: **ShMK**
1,2,4-Trichlorobenzene	< 0.010	0.010	mg/L	1	08/29/2017 19:00
1,2-Diphenylhydrazine	< 0.050	0.050	mg/L	1	08/29/2017 19:00
2,4,6-Trichlorophenol	< 0.010	0.010	mg/L	1	08/29/2017 19:00
2,4-Dichlorophenol	< 0.010	0.010	mg/L	1	08/29/2017 19:00
2,4-Dimethylphenol	< 0.010	0.010	mg/L	1	08/29/2017 19:00
2,4-Dinitrophenol	< 0.050	0.050	mg/L	1	08/29/2017 19:00
2,4-Dinitrotoluene	< 0.010	0.010	mg/L	1	08/29/2017 19:00
2,6-Dinitrotoluene	< 0.010	0.010	mg/L	1	08/29/2017 19:00
2-Chloronaphthalene	< 0.010	0.010	mg/L	1	08/29/2017 19:00
2-Chlorophenol	< 0.010	0.010	mg/L	1	08/29/2017 19:00
2-Nitrophenol	< 0.010	0.010	mg/L	1	08/29/2017 19:00

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3516 Greensboro Avenue
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Tuscaloosa, AL 35401

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Date: 14-Sep-17

CLIENT: Hoover Public Center
Project: Riverchase WWTP - EPA Form 2A-Part D - Sample #2
Lab Order: 170823016

Lab ID: 170823016-001
Collection Date: 08/23/2017 8:30
Client Sample ID: Effluent - Composite
Matrix: Aqueous

Analyses	Result	Limit	Units	DF	Date Analyzed
SILVER, TREC, BY GFAA		**E200.9**	Prep:(E200.9)	08/24/2017 9:00	Analyst: TBC
Silver, as Ag	< 0.001	0.001	mg/L	1	08/29/2017 10:41
ARSENIC, TREC FOR NPDES		**E200.9**	Prep:		Analyst: TBC
Arsenic, as As	< 0.001	0.001	mg/L	1	09/12/2017 15:21
TOTAL HARDNESS		**E200.7**	Prep:(E200.7)	08/24/2017 9:00	Analyst: SFC
Hardness, Calcium/Magnesium (As CaCO3)	158	1.00	mg/L	1	08/30/2017 11:39
Hardness, Calcium (As CaCO3)	102	1.00	mg/L	1	08/30/2017 11:39
Hardness, Magnesium (As CaCO3)	55.5	1.00	mg/L	1	08/30/2017 11:39
ICP METALS, TOTAL RECOVERABLE		**E200.7**	Prep:(E4.1.1)	08/24/2017 9:00	Analyst: SFC
Beryllium, as Be	< 0.001	0.001	mg/L	1	09/07/2017 12:02
Cadmium, as Cd	< 0.001	0.001	mg/L	1	09/07/2017 12:02
Chromium, as Cr	< 0.010	0.010	mg/L	1	09/07/2017 12:02
Copper, as Cu	0.011	0.010	mg/L	1	09/07/2017 12:02
Lead, as Pb	< 0.005	0.005	mg/L	1	09/07/2017 12:02
Nickel, as Ni	< 0.050	0.050	mg/L	1	09/07/2017 12:02
Zinc, as Zn	< 0.050	0.050	mg/L	1	09/07/2017 12:02
ANTIMONY, TREC FOR NPDES		**E200.9**	Prep:		Analyst: TBC
Antimony, as Sb	< 0.005	0.005	mg/L	1	09/13/2017 10:08
SELENIUM, TREC FOR NPDES		**E200.9**	Prep:		Analyst: TBC
Selenium, as Se	< 0.005	0.005	mg/L	1	08/30/2017 12:35
THALLIUM,TOTAL RECOVERABLE FOR		**E200.9**	Prep:		Analyst: TBC
Thallium, as Tl	< 0.001	0.001	mg/L	1	08/25/2017 13:20
SEMIVOLATILE ORGANICS BY 625		**E625**	Prep:(E625)	08/23/2017 16:08	Analyst: ShMK
1,2,4-Trichlorobenzene	< 0.010	0.010	mg/L	1	08/29/2017 22:07
1,2-Diphenylhydrazine	< 0.050	0.050	mg/L	1	08/29/2017 22:07
2,4,6-Trichlorophenol	< 0.010	0.010	mg/L	1	08/29/2017 22:07
2,4-Dichlorophenol	< 0.010	0.010	mg/L	1	08/29/2017 22:07
2,4-Dimethylphenol	< 0.010	0.010	mg/L	1	08/29/2017 22:07
2,4-Dinitrophenol	< 0.050	0.050	mg/L	1	08/29/2017 22:07
2,4-Dinitrotoluene	< 0.010	0.010	mg/L	1	08/29/2017 22:07
2,6-Dinitrotoluene	< 0.010	0.010	mg/L	1	08/29/2017 22:07
2-Chloronaphthalene	< 0.010	0.010	mg/L	1	08/29/2017 22:07
2-Chlorophenol	< 0.010	0.010	mg/L	1	08/29/2017 22:07
2-Nitrophenol	< 0.010	0.010	mg/L	1	08/29/2017 22:07

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Date: 14-Sep-17

CLIENT: Hoover Public Center
Project: Riverchase WWTP - EPA Form 2A-Part D - Sample #3
Lab Order: 170825014

Lab ID: 170825014-001
Collection Date: 08/25/2017 9:00
Client Sample ID: Effluent - Composite
Matrix: Aqueous

Analyses	Result	Limit	Units	DF	Date Analyzed
SILVER, TREC, BY GFAA		**E200.9**	Prep:(E200.9)	08/28/2017 9:00	Analyst: **TBC**
Silver, as Ag	< 0.001	0.001	mg/L	1	09/13/2017 15:35
ARSENIC, TREC FOR NPDES		**E200.9**	Prep:		Analyst: **TBC**
Arsenic, as As	< 0.001	0.001	mg/L	1	09/12/2017 15:21
TOTAL HARDNESS		**E200.7**	Prep:(E200.7)	08/28/2017 9:00	Analyst: **SFC**
Hardness, Calcium/Magnesium (As CaCO3)	160	1.00	mg/L	1	08/30/2017 11:39
Hardness, Calcium (As CaCO3)	103	1.00	mg/L	1	08/30/2017 11:39
Hardness, Magnesium (As CaCO3)	56.4	1.00	mg/L	1	08/30/2017 11:39
ICP METALS, TOTAL RECOVERABLE		**E200.7**	Prep:(E4.1.1)	08/28/2017 9:00	Analyst: **SFC**
Beryllium, as Be	< 0.001	0.001	mg/L	1	09/07/2017 12:02
Cadmium, as Cd	< 0.001	0.001	mg/L	1	09/07/2017 12:02
Chromium, as Cr	< 0.010	0.010	mg/L	1	09/07/2017 12:02
Copper, as Cu	< 0.010	0.010	mg/L	1	09/07/2017 12:02
Lead, as Pb	< 0.005	0.005	mg/L	1	09/07/2017 12:02
Nickel, as Ni	< 0.050	0.050	mg/L	1	09/07/2017 12:02
Zinc, as Zn	< 0.050	0.050	mg/L	1	09/07/2017 12:02
ANTIMONY, TREC FOR NPDES		**E200.9**	Prep:		Analyst: **TBC**
Antimony, as Sb	< 0.005	0.005	mg/L	1	09/13/2017 10:08
SELENIUM, TREC FOR NPDES		**E200.9**	Prep:		Analyst: **TBC**
Selenium, as Se	< 0.005	0.005	mg/L	1	08/30/2017 12:35
THALLIUM,TOTAL RECOVERABLE FOR		**E200.9**	Prep:		Analyst: **TBC**
Thallium, as Tl	< 0.001	0.001	mg/L	1	09/13/2017 10:08
SEMIVOLATILE ORGANICS BY 625		**E625**	Prep:(E625)	08/25/2017 14:03	Analyst: **ShMK**
1,2,4-Trichlorobenzene	< 0.010	0.010	mg/L	1	08/29/2017 23:40
1,2-Diphenylhydrazine	< 0.050	0.050	mg/L	1	08/29/2017 23:40
2,4,6-Trichlorophenol	< 0.010	0.010	mg/L	1	08/29/2017 23:40
2,4-Dichlorophenol	< 0.010	0.010	mg/L	1	08/29/2017 23:40
2,4-Dimethylphenol	< 0.010	0.010	mg/L	1	08/29/2017 23:40
2,4-Dinitrophenol	< 0.050	0.050	mg/L	1	08/29/2017 23:40
2,4-Dinitrotoluene	< 0.010	0.010	mg/L	1	08/29/2017 23:40
2,6-Dinitrotoluene	< 0.010	0.010	mg/L	1	08/29/2017 23:40
2-Chloronaphthalene	< 0.010	0.010	mg/L	1	08/29/2017 23:40
2-Chlorophenol	< 0.010	0.010	mg/L	1	08/29/2017 23:40
2-Nitrophenol	< 0.010	0.010	mg/L	1	08/29/2017 23:40

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...rawer 1128 (35403)
...caloosa, AL 35401

205.345.0816 tel
205.343.0635 fax
www.TTLINC.com

Date: 14-Sep-17

CLIENT: Hoover Public Center
Project: Riverchase WWTP - EPA Form 2A-Part D - Sample #1
Lab Order: 170821010

SEMIVOLATILE ORGANICS BY 625		E625	Prep:(E625)	08/22/2017 14:31	Analyst: ShMK
3,3'-Dichlorobenzidine	< 0.020	0.020	mg/L	1	08/29/2017 19:00
4,6-Dinitro-2-methylphenol	< 0.050	0.050	mg/L	1	08/29/2017 19:00
4-Bromophenyl phenyl ether	< 0.010	0.010	mg/L	1	08/29/2017 19:00
4-Chloro-3-methylphenol	< 0.010	0.010	mg/L	1	08/29/2017 19:00
4-Chlorophenyl phenyl ether	< 0.010	0.010	mg/L	1	08/29/2017 19:00
4-Nitrophenol	< 0.050	0.050	mg/L	1	08/29/2017 19:00
Acenaphthene	< 0.010	0.010	mg/L	1	08/29/2017 19:00
Acenaphthylene	< 0.010	0.010	mg/L	1	08/29/2017 19:00
Anthracene	< 0.010	0.010	mg/L	1	08/29/2017 19:00
Benz(A)anthracene	< 0.010	0.010	mg/L	1	08/29/2017 19:00
Benzidine	< 0.050	0.050	mg/L	1	08/29/2017 19:00
Benzo(a)pyrene	< 0.010	0.010	mg/L	1	08/29/2017 19:00
Benzo(b)fluoranthene	< 0.010	0.010	mg/L	1	08/29/2017 19:00
Benzo(g,h,i)perylene	< 0.010	0.010	mg/L	1	08/29/2017 19:00
Benzo(k)fluoranthene	< 0.010	0.010	mg/L	1	08/29/2017 19:00
Bis(2-chloroethoxy)methane	< 0.010	0.010	mg/L	1	08/29/2017 19:00
Bis(2-chloroethyl)ether	< 0.010	0.010	mg/L	1	08/29/2017 19:00
Bis(2-chloroisopropyl)ether	< 0.010	0.010	mg/L	1	08/29/2017 19:00
Bis(2-ethylhexyl)phthalate	0.012	0.010	mg/L	1	08/29/2017 19:00
Butyl benzyl phthalate	< 0.010	0.010	mg/L	1	08/29/2017 19:00
Chrysene	< 0.010	0.010	mg/L	1	08/29/2017 19:00
Dibenz(a,h)anthracene	< 0.010	0.010	mg/L	1	08/29/2017 19:00
Diethyl phthalate	< 0.010	0.010	mg/L	1	08/29/2017 19:00
Dimethyl phthalate	< 0.010	0.010	mg/L	1	08/29/2017 19:00
Di-n-butyl phthalate	< 0.010	0.010	mg/L	1	08/29/2017 19:00
Di-n-octyl phthalate	< 0.010	0.010	mg/L	1	08/29/2017 19:00
Fluoranthene	< 0.010	0.010	mg/L	1	08/29/2017 19:00
Fluorene	< 0.010	0.010	mg/L	1	08/29/2017 19:00
Hexachlorobenzene	< 0.010	0.010	mg/L	1	08/29/2017 19:00
Hexachlorobutadiene	< 0.010	0.010	mg/L	1	08/29/2017 19:00
Hexachlorocyclopentadiene	< 0.010	0.010	mg/L	1	08/29/2017 19:00
Hexachloroethane	< 0.010	0.010	mg/L	1	08/29/2017 19:00
Indeno(1,2,3-cd)pyrene	< 0.010	0.010	mg/L	1	08/29/2017 19:00
Isophorone	< 0.010	0.010	mg/L	1	08/29/2017 19:00
Naphthalene	< 0.010	0.010	mg/L	1	08/29/2017 19:00
Nitrobenzene	< 0.010	0.010	mg/L	1	08/29/2017 19:00
N-Nitrosodimethylamine	< 0.010	0.010	mg/L	1	08/29/2017 19:00
N-Nitrosodi-n-propylamine	< 0.010	0.010	mg/L	1	08/29/2017 19:00
N-Nitrosodiphenylamine	< 0.010	0.010	mg/L	1	08/29/2017 19:00
Pentachlorophenol	< 0.025	0.025	mg/L	1	08/29/2017 19:00
Phenanthrene	< 0.010	0.010	mg/L	1	08/29/2017 19:00
Phenol	< 0.010	0.010	mg/L	1	08/29/2017 19:00

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Tuscaloosa, AL 35401

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Date: 14-Sep-17

CLIENT: Hoover Public Center
Project: Riverchase WWTP - EPA Form 2A-Part D - Sample #2
Lab Order: 170823016

SEMIVOLATILE ORGANICS BY 625		E625	Prep:(E625)	08/23/2017 16:08	Analyst: ShMK
3,3'-Dichlorobenzidine	< 0.020	0.020	mg/L	1	08/29/2017 22:07
4,6-Dinitro-2-methylphenol	< 0.050	0.050	mg/L	1	08/29/2017 22:07
4-Bromophenyl phenyl ether	< 0.010	0.010	mg/L	1	08/29/2017 22:07
4-Chloro-3-methylphenol	< 0.010	0.010	mg/L	1	08/29/2017 22:07
4-Chlorophenyl phenyl ether	< 0.010	0.010	mg/L	1	08/29/2017 22:07
4-Nitrophenol	< 0.050	0.050	mg/L	1	08/29/2017 22:07
Acenaphthene	< 0.010	0.010	mg/L	1	08/29/2017 22:07
Acenaphthylene	< 0.010	0.010	mg/L	1	08/29/2017 22:07
Anthracene	< 0.010	0.010	mg/L	1	08/29/2017 22:07
Benz(A)anthracene	< 0.010	0.010	mg/L	1	08/29/2017 22:07
Benzidine	< 0.050	0.050	mg/L	1	08/29/2017 22:07
Benzo(a)pyrene	< 0.010	0.010	mg/L	1	08/29/2017 22:07
Benzo(b)fluoranthene	< 0.010	0.010	mg/L	1	08/29/2017 22:07
Benzo(g,h,i)perylene	< 0.010	0.010	mg/L	1	08/29/2017 22:07
Benzo(k)fluoranthene	< 0.010	0.010	mg/L	1	08/29/2017 22:07
Bis(2-chloroethoxy)methane	< 0.010	0.010	mg/L	1	08/29/2017 22:07
Bis(2-chloroethyl)ether	< 0.010	0.010	mg/L	1	08/29/2017 22:07
Bis(2-chloroisopropyl)ether	< 0.010	0.010	mg/L	1	08/29/2017 22:07
Bis(2-ethylhexyl)phthalate	0.014	0.010	mg/L	1	08/29/2017 22:07
Butyl benzyl phthalate	< 0.010	0.010	mg/L	1	08/29/2017 22:07
Chrysene	< 0.010	0.010	mg/L	1	08/29/2017 22:07
Dibenz(a,h)anthracene	< 0.010	0.010	mg/L	1	08/29/2017 22:07
Diethyl phthalate	< 0.010	0.010	mg/L	1	08/29/2017 22:07
Dimethyl phthalate	< 0.010	0.010	mg/L	1	08/29/2017 22:07
Di-n-butyl phthalate	< 0.010	0.010	mg/L	1	08/29/2017 22:07
Di-n-octyl phthalate	< 0.010	0.010	mg/L	1	08/29/2017 22:07
Fluoranthene	< 0.010	0.010	mg/L	1	08/29/2017 22:07
Fluorene	< 0.010	0.010	mg/L	1	08/29/2017 22:07
Hexachlorobenzene	< 0.010	0.010	mg/L	1	08/29/2017 22:07
Hexachlorobutadiene	< 0.010	0.010	mg/L	1	08/29/2017 22:07
Hexachlorocyclopentadiene	< 0.010	0.010	mg/L	1	08/29/2017 22:07
Hexachloroethane	< 0.010	0.010	mg/L	1	08/29/2017 22:07
Indeno(1,2,3-cd)pyrene	< 0.010	0.010	mg/L	1	08/29/2017 22:07
Isophorone	< 0.010	0.010	mg/L	1	08/29/2017 22:07
Naphthalene	< 0.010	0.010	mg/L	1	08/29/2017 22:07
Nitrobenzene	< 0.010	0.010	mg/L	1	08/29/2017 22:07
N-Nitrosodimethylamine	< 0.010	0.010	mg/L	1	08/29/2017 22:07
N-Nitrosodi-n-propylamine	< 0.010	0.010	mg/L	1	08/29/2017 22:07
N-Nitrosodiphenylamine	< 0.010	0.010	mg/L	1	08/29/2017 22:07
Pentachlorophenol	< 0.025	0.025	mg/L	1	08/29/2017 22:07
Phenanthrene	< 0.010	0.010	mg/L	1	08/29/2017 22:07
Phenol	< 0.010	0.010	mg/L	1	08/29/2017 22:07

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Date: 14-Sep-17

CLIENT: Hoover Public Center
Project: Riverchase WWTP - EPA Form 2A-Part D - Sample #3
Lab Order: 170825014

SEMIVOLATILE ORGANICS BY 625		E625	Prep:(E625)	08/25/2017 14:03	Analyst: ShMK
3,3'-Dichlorobenzidine	< 0.020	0.020	mg/L	1	08/29/2017 23:40
4,6-Dinitro-2-methylphenol	< 0.050	0.050	mg/L	1	08/29/2017 23:40
4-Bromophenyl phenyl ether	< 0.010	0.010	mg/L	1	08/29/2017 23:40
4-Chloro-3-methylphenol	< 0.010	0.010	mg/L	1	08/29/2017 23:40
4-Chlorophenyl phenyl ether	< 0.010	0.010	mg/L	1	08/29/2017 23:40
4-Nitrophenol	< 0.050	0.050	mg/L	1	08/29/2017 23:40
Acenaphthene	< 0.010	0.010	mg/L	1	08/29/2017 23:40
Acenaphthylene	< 0.010	0.010	mg/L	1	08/29/2017 23:40
Anthracene	< 0.010	0.010	mg/L	1	08/29/2017 23:40
Benz(A)anthracene	< 0.010	0.010	mg/L	1	08/29/2017 23:40
Benzidine	< 0.050	0.050	mg/L	1	08/29/2017 23:40
Benzo(a)pyrene	< 0.010	0.010	mg/L	1	08/29/2017 23:40
Benzo(b)fluoranthene	< 0.010	0.010	mg/L	1	08/29/2017 23:40
Benzo(g,h,i)perylene	< 0.010	0.010	mg/L	1	08/29/2017 23:40
Benzo(k)fluoranthene	< 0.010	0.010	mg/L	1	08/29/2017 23:40
Bis(2-chloroethoxy)methane	< 0.010	0.010	mg/L	1	08/29/2017 23:40
Bis(2-chloroethyl)ether	< 0.010	0.010	mg/L	1	08/29/2017 23:40
Bis(2-chloroisopropyl)ether	< 0.010	0.010	mg/L	1	08/29/2017 23:40
Bis(2-ethylhexyl)phthalate	0.018	0.010	mg/L	1	08/29/2017 23:40
Butyl benzyl phthalate	< 0.010	0.010	mg/L	1	08/29/2017 23:40
Chrysene	< 0.010	0.010	mg/L	1	08/29/2017 23:40
Dibenz(a,h)anthracene	< 0.010	0.010	mg/L	1	08/29/2017 23:40
Diethyl phthalate	< 0.010	0.010	mg/L	1	08/29/2017 23:40
Dimethyl phthalate	< 0.010	0.010	mg/L	1	08/29/2017 23:40
Di-n-butyl phthalate	< 0.010	0.010	mg/L	1	08/29/2017 23:40
Di-n-octyl phthalate	< 0.010	0.010	mg/L	1	08/29/2017 23:40
Fluoranthene	< 0.010	0.010	mg/L	1	08/29/2017 23:40
Fluorene	< 0.010	0.010	mg/L	1	08/29/2017 23:40
Hexachlorobenzene	< 0.010	0.010	mg/L	1	08/29/2017 23:40
Hexachlorobutadiene	< 0.010	0.010	mg/L	1	08/29/2017 23:40
Hexachlorocyclopentadiene	< 0.010	0.010	mg/L	1	08/29/2017 23:40
Hexachloroethane	< 0.010	0.010	mg/L	1	08/29/2017 23:40
Indeno(1,2,3-cd)pyrene	< 0.010	0.010	mg/L	1	08/29/2017 23:40
Isophorone	< 0.010	0.010	mg/L	1	08/29/2017 23:40
Naphthalene	< 0.010	0.010	mg/L	1	08/29/2017 23:40
Nitrobenzene	< 0.010	0.010	mg/L	1	08/29/2017 23:40
N-Nitrosodimethylamine	< 0.010	0.010	mg/L	1	08/29/2017 23:40
N-Nitrosodi-n-propylamine	< 0.010	0.010	mg/L	1	08/29/2017 23:40
N-Nitrosodiphenylamine	< 0.010	0.010	mg/L	1	08/29/2017 23:40
Pentachlorophenol	< 0.025	0.025	mg/L	1	08/29/2017 23:40
Phenanthrene	< 0.010	0.010	mg/L	1	08/29/2017 23:40
Phenol	< 0.010	0.010	mg/L	1	08/29/2017 23:40

Please print or type in the unshaded areas only.

EPA ID Number (*copy from Item 1 of Form 1*)
NPDES Permit AL0041653

Form Approved. OMB No. 2040-0086
Approval expires 5-31-92

FORM 2F NPDES

U.S. Environmental Protection Agency
Washington, DC 20460

Application for Permit to Discharge Storm Water Discharges Associated with Industrial Activity

Paperwork Reduction Act Notice

Public reporting burden for this application is estimated to average 28.6 hours per application, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding the burden estimate, any other aspect of this collection of information, or suggestions for improving this form, including suggestions which may increase or reduce this burden to: Chief, Information Policy Branch, PM-223, U.S. Environmental Protection Agency, 1200 Pennsylvania Avenue, NW, Washington, DC 20460, or Director, Office of Information and Regulatory Affairs, Office of Management and Budget, Washington, DC 20503.

I. Outfall Location

For each outfall, list the latitude and longitude of its location to the nearest 15 seconds and the name of the receiving water.

A. Outfall Number (*list*)	B. Latitude			C. Longitude			D. Receiving Water (*name*)
002S	33.00	22.00	11.53	86.00	47.00	40.45	Cahaba River
003S	33.00	22.00	7.80	86.00	47.00	40.93	Cahaba River
004S	33.00	22.00	9.52	86.00	47.00	32.59	Cahaba River

II. Improvements

A. Are you now required by any Federal, State, or local authority to meet any implementation schedule for the construction, upgrading or operation of wastewater treatment equipment or practices or any other environmental programs which may affect the discharges described in this application? This includes, but is not limited to, permit conditions, administrative or enforcement orders, enforcement compliance schedule letters, stipulations, court orders, and grant or loan conditions.

1. Identification of Conditions, Agreements, Etc.	2. Affected Outfalls		3. Brief Description of Project	4. Final Compliance Date	
	number	source of discharge		a. req.	b. proj.
N/A					

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B. You may attach additional sheets describing any additional water pollution (or other environmental projects which may affect your discharges) you now have under way or which you plan. Indicate whether each program is now under way or planned, and indicate your actual or planned schedules for construction.

III. Site Drainage Map

Attach a site map showing topography (or indicating the outline of drainage areas served by the outfalls(s) covered in the application if a topographic map is unavailable) depicting the facility including: each of its intake and discharge structures; the drainage area of each storm water outfall; paved areas and buildings within the drainage area of each storm water outfall, each known past or present areas used for outdoor storage of disposal of significant materials, each existing structural control measure to reduce pollutants in storm water runoff, materials loading and access areas, areas where pesticides, herbicides, soil conditioners and fertilizers are applied; each of its hazardous waste treatment, storage or disposal units (including each area not required to have a RCRA permit which is used for accumulating hazardous waste under 40 CFR 262.34); each well where fluids from the facility are injected underground; springs, and other surface water bodies which received storm water discharges from the facility.

Continue on Page 2

Continued from the Front

IV. Narrative Description of Pollutant Sources

A. For each outfall, provide an estimate of the area (include units) of imperious surfaces (including paved areas and building roofs) drained to the outfall, and an estimate of the total surface area drained by the outfall.

Outfall Number	Area of Impervious Surface *(provide units)*	Total Area Drained *(provide units)*	Outfall Number	Area of Impervious Surface *(provide units)*	Total Area Drained *(provide units)*
002S	Paved Areas - 0.46 Acres Building Roofs - 0.088 Acres	2.02 Acres	004S	Paved Areas - 0.0 Acres Building Roofs - 0.0 Acres	0.13 Acres
003S	Paved Areas - 0.24 Acres Building Roofs - 0.457 Acres	2.79 Acres			

B. Provide a narrative description of significant materials that are currently or in the past three years have been treated, stored or disposed in a manner to allow exposure to storm water; method of treatment, storage, or disposal; past and present materials management practices employed to minimize contact by these materials with storm water runoff; materials loading and access areas, and the location, manner, and frequency in which pesticides, herbicides, soil conditioners, and fertilizers are applied.

None

C. For each outfall, provide the location and a description of existing structural and nonstructural control measures to reduce pollutants in storm water runoff; and a description of the treatment the storm water receives, including the schedule and type of maintenance for control and treatment measures and the ultimate disposal of any solid or fluid wastes other than by discharge.

Outfall Number	Treatment	List Codes from Table 2F-1
N/A		

V. Nonstormwater Discharges

A. I certify under penalty of law hat the outfall(s) covered by this application have been tested or evaluated for the presence of nonstormwater discharges, and that all nonstormwater discharged from these outfall(s) are identified in either an accompanying Form 2C or From 2E application for the outfall.

Name and Official Title *(type or print)*	Signature	Date Signed
N/A		

B. Provide a description of the method used, the date of any testing, and the onsite drainage points that were directly observed during a test.

N/A

VI. Significant Leaks or Spills

Provide existing information regarding the history of significant leaks or spills of toxic or hazardous pollutants at the facility in the last three years, including the approximate date and location of the spill or leak, and the type and amount of material released.

N/A

EPA ID Number *(copy from Item 1 of Form 1)*
NPDES Permit AL0041653

VII. Discharge Information

A, B, C, & D: See instructions before proceeding. Complete one set of tables for each outfall. Annotate the outfall number in the space provided.
Table VII-A, VII-B, VII-C are included on separate sheets numbers VII-1 and VII-2.

E. Potential discharges not covered by analysis – is any toxic pollutant listed in table 2F-2, 2F-3, or 2F-4, a substance or a component of a substance which you currently use or manufacture as an intermediate or final product or byproduct?

☐ Yes (*list all such pollutants below*) ☑ No (*go to Section IX*)

VIII. Biological Toxicity Testing Data

Do you have any knowledge or reason to believe that any biological test for acute or chronic toxicity has been made on any of your discharges or on a receiving water in relation to your discharge within the last 3 years?

☐ Yes (*list all such pollutants below*) ☑ No (*go to Section IX*)

IX. Contract Analysis Information

Were any of the analyses reported in Item VII performed by a contract laboratory or consulting firm?

☑ Yes (*list the name, address, and telephone number of, and pollutants analyzed by, each such laboratory or firm below*) ☐ No (*go to Section X*)

A. Name	B. Address	C. Area Code & Phone No.	D. Pollutants Analyzed
TTL, Inc.	3516 Greensboro Avenue Tuscaloosa, AL 35401	(205)345-0816	Oil and Grease

X. Certification

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

A. Name & Official Title (*Type Or Print*)	B. Area Code and Phone No.
Allan Rice, City Administrator	(205) 444-7541
C. Signature	D. Date Signed
	9/29/17

EPA ID Number (*copy from Item 1 of Form 1*)
NPDES Permit AL0041653 (002S)

Form Approved. OMB No. 2040-0086
Approval expires 5-31-92

VII. Discharge information *(Continued from page 3 of Form 2F)*

Part A – You must provide the results of at least one analysis for every pollutant in this table. Complete one table for each outfall. See instructions for additional details.

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Oil and Grease	6.5 mg/l	N/A	6.5 mg/l	N/A	1.00	Vehicles
Biological Oxygen Demand (BOD5)	20.6 mg/l	N/A	20.6 mg/l	N/A	1.00	Decaying plant debris, animal waste
Chemical Oxygen Demand (COD)	N/A	N/A	N/A	N/A	0.00	Decaying plant debris, animal waste
Total Suspended Solids (TSS)	260 mg/l	N/A	260 mg/l	N/A	1.00	Erosion
Total Nitrogen	0.07 mg/l	N/A	0.07 mg/l	N/A	1.00	Soil, fertilizers, animal waste
Total Phosphorus	0.768 mg/l	N/A	0.768 mg/l	N/A	1.00	Soil, fertilizers, animal waste
pH	Minimum 6.97	Maximum 6.97	Minimum 6.97	Maximum 6.97	1.00	Chlorinated water irrigation

Part B – List each pollutant that is limited in an effluent guideline which the facility is subject to or any pollutant listed in the facility's NPDES permit for its process wastewater (if the facility is operating under an existing NPDES permit). Complete one table for each outfall. See the instructions for additional details and requirements.

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
TKN	0.1 mg/l	N/A	0.1 mg/l	N/A	1.00	Decaying plant debris, animal waste
Nitrite+Nitrate	7.48 mg/l	N/A	7.48 mg/l	N/A	1.00	Decaying plant debris, animal waste
E. Coli	2200 col/100ml	N/A	2200	N/A	1.00	Animal waste

VII. Discharge information *(Continued from page 3 of Form 2F)*

Part A – You must provide the results of at least one analysis for every pollutant in this table. Complete one table for each outfall. See instructions for additional details.

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Oil and Grease	2.4 mg/l	N/A	2.4 mg/l	N/A	1.00	Vehicles
Biological Oxygen Demand (BOD5)	7.95 mg/l	N/A	7.95 mg/l	N/A	1.00	Decaying plant debris, animal waste
Chemical Oxygen Demand (COD)	N/A	N/A	N/A	N/A	0.00	Decaying plant debris, animal waste
Total Suspended Solids (TSS)	4 mg/l	N/A	4 mg/l	N/A	1.00	Erosion
Total Nitrogen	0.01 mg/l	N/A	0.01 mg/l	N/A	1.00	Soil, fertilizers, animal waste
Total Phosphorus	0.06 mg/l	N/A	0.06 mg/l	N/A	1.00	Soil, fertilizers, animal waste
pH	Minimum 7.12	Maximum 7.12	Minimum 7.12	Maximum 7.12	1.00	Chlorinated water irrigation

Part B – List each pollutant that is limited in an effluent guideline which the facility is subject to or any pollutant listed in the facility's NPDES permit for its process wastewater (if the facility is operating under an existing NPDES permit). Complete one table for each outfall. See the instructions for additional details and requirements.

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
TKN	0.1 mg/l	N/A	0.1 mg/l	N/A	1.00	Decaying plant debris, animal waste
Nitrite+Nitrate	13.1 mg/l	N/A	13.1 mg/l	N/A	1.00	Decaying plant debris, animal waste
E. Coli	300 col/100ml	N/A	300	N/A	1.00	Animal waste

EPA ID Number (*copy from Item 1 of Form 1*)
NPDES Permit AL0041653 (004S)

Form Approved. OMB No. 2040-0086
Approval expires 5-31-92

VII. Discharge information *(Continued from page 3 of Form 2F)*

Part A – You must provide the results of at least one analysis for every pollutant in this table. Complete one table for each outfall. See instructions for additional details.

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Oil and Grease	2.0 mg/l	N/A	2.0 mg/l	N/A	1.00	Vehicles
Biological Oxygen Demand (BOD5)	37.7 mg/l	N/A	37.7 mg/l	N/A	1.00	Decaying plant debris, animal waste
Chemical Oxygen Demand (COD)	N/A	N/A	N/A	N/A	0.00	Decaying plant debris, animal waste
Total Suspended Solids (TSS)	19 mg/l	N/A	19 mg/l	N/A	1.00	Erosion
Total Nitrogen	0.12 mg/l	N/A	0.12 mg/l	N/A	1.00	Soil, fertilizers, animal waste
Total Phosphorus	0.49 mg/l	N/A	0.49 mg/l	N/A	1.00	Soil, fertilizers, animal waste
pH	Minimum 7.04	Maximum 7.04	Minimum 7.04	Maximum 7.04	1.00	Chlorinated water irrigation

Part B – List each pollutant that is limited in an effluent guideline which the facility is subject to or any pollutant listed in the facility's NPDES permit for its process wastewater (if the facility is operating under an existing NPDES permit). Complete one table for each outfall. See the instructions for additional details and requirements.

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
TKN	0.1 mg/l	N/A	0.1 mg/l	N/A	1.00	Decaying plant debris, animal waste
Nitrite+Nitrate	0.87 mg/l	N/A	0.87 mg/l	N/A	1.00	Decaying plant debris, animal waste
E. Coli	BDL	N/A	BDL	N/A	1.00	Animal waste

Continued from the Front

Part C - List each pollutant shown in Table 2F-2, 2F-3, and 2F-4 that you know or have reason to believe is present. See the instructions for additional details and requirements. Complete one table for each outfall.

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
N/A						

Part D – Provide data for the storm event(s) which resulted in the maximum values for the flow weighted composite sample.

1. Date of Storm Event	2. Duration of Storm Event *(in minutes)*	3. Total rainfall during storm event *(in inches)*	4. Number of hours between beginning of storm measured and end of previous measurable rain event	5. Maximum flow rate during rain event *(gallons/minute or specify units)*	6. Total flow from rain event *(gallons or specify units)*
12-12-16 RC-002S	270 minutes	0.15 inches	144 hours	30 gal/min	8,000 gallons

7. Provide a description of the method of flow measurement or estimate.

Estimate is based on the total rainfall and the duration of the event.

Continued from the Front

Part C - List each pollutant shown in Table 2F-2, 2F-3, and 2F-4 that you know or have reason to believe is present. See the instructions for additional details and requirements. Complete one table for each outfall.

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
N/A						

Part D – Provide data for the storm event(s) which resulted in the maximum values for the flow weighted composite sample.

1. Date of Storm Event	2. Duration of Storm Event *(in minutes)*	3. Total rainfall during storm event *(in inches)*	4. Number of hours between beginning of storm measured and end of previous measurable rain event	5. Maximum flow rate during rain event *(gallons/minute or specify units)*	6. Total flow from rain event *(gallons or specify units)*
12-12-16 RC-003S	270 minutes	0.15 inches	144 hours	507 gal/min	137,000 gallons

7. Provide a description of the method of flow measurement or estimate.

Estimate is based on the total rainfall and the duration of the event.

Continued from the Front

Part C - List each pollutant shown in Table 2F-2, 2F-3, and 2F-4 that you know or have reason to believe is present. See the instructions for additional details and requirements. Complete one table for each outfall.

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
N/A						

Part D – Provide data for the storm event(s) which resulted in the maximum values for the flow weighted composite sample.

1. Date of Storm Event	2. Duration of Storm Event *(in minutes)*	3. Total rainfall during storm event *(in inches)*	4. Number of hours between beginning of storm measured and end of previous measurable rain event	5. Maximum flow rate during rain event *(gallons/minute or specify units)*	6. Total flow from rain event *(gallons or specify units)*
12-12-16 RC-004S	270 minutes	0.15 inches	144 hours	4 gal/min	1,000 gallons

7. Provide a description of the method of flow measurement or estimate.

Estimate is based on the total rainfall and the duration of the event.

ALABAMA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT (ADEM)
NPDES INDIVIDUAL PERMIT APPLICATION
SUPPLEMENTARY INFORMATION FOR PUBLICLY-OWNED TREATMENT WORKS (POTW), OTHER TREATMENT WORKS TREATING DOMESTIC SEWAGE (TWTDS), AND PUBLIC WATER SUPPLY TREATMENT PLANTS

Instructions: This form should be used to submit the required supplementary information for an application for an NPDES individual permit for Publicly Owned Treatment Works (POTW) and other Treatment Works Treating Domestic Sewage (TWTDS). The completed application should be submitted to ADEM in duplicate. If insufficient space is available to address any item, please continue on an attached sheet of paper. Please mark "N/A" in the appropriate box when an item is not applicable to the applicant. **Please type or print legibly in blue or black ink.** Mail the completed application to:

ADEM-Water Division
Municipal Section
P O Box 301463
Montgomery, AL 36130-1463

PURPOSE OF THIS APPLICATION

☐ Initial Permit Application for New Facility*
☐ Modification of Existing Permit
☐ Revocation & Reissuance of Existing Permit
☐ Initial Permit Application for Existing Facility*
☒ Reissuance of Existing Permit

** An application for participation in the ADEM's Electronic Environmental (E2) Reporting must be submitted to allow permittee to electronically submit reports as required.*

SECTION A – GENERAL INFORMATION

1. Facility Name: City of Hoover Riverchase WWTP

   a. Operator Name: Clearwater Solutions, LLC

   b. Is the operator identified in A.1.a, the owner of the facility? ☐ Yes ☒ No
   If no, provide name and address of the operator and submit information indicating the operator's scope of responsibility for the facility.
   Clearwater Solutions, LLC 219 South 8th Street Suite 3 Opelika, AL 36801
   O & M of the WWTP, pumping stations and the collection sewers

   c. Name of Permittee* if different than Operator: City of Hoover
   **Permittee will be responsible for compliance with the conditions of the permit*

2. NPDES Permit Number: AL 0041653 (Not applicable if initial permit application)

3. Facility Physical Location: (**Attach a map with location marked; street, route no. or other specific identifier**)
   Street: 2005 Parkway River Road
   City: Hoover County: Jefferson State: Alabama Zip: 35244
   Facility Location (Front Gate): Latitude: N33/22/7.6 Longitude: W86/47/33.3

4. Facility Mailing Address: 100 Municipal Lane
   City: Hoover County: Jefferson State: Alabama Zip: 35216

5. Responsible Official (as described on last page of this application):
   Name and Title: Allan Rice, City Administrator
   Address: 100 Municipal Lane
   City: Hoover State: Alabama Zip: 35216
   Phone Number: (205)444-7541 Email Address: ricea@ci.hoover.al.us

6. Designated Facility/DMR Contact:

Name and Title: Phil McGraw, Civil Engineer

Phone Number: (205)444-7637

DMR Email Address (Optional – for receipt of blank DMR Forms): mcgrawp@ci.hoover.al.us

7. Designated Emergency Contact:

Name and Title: Phil McGraw, Civil Engineer

Phone Number: (205)444-7637

Email Address **(Required)**: mcgrawp@ci.hoover.al.us

8. Please complete this section if the Applicant's business entity is a Proprietorship or limited liability Corporation with a responsible official not listed in Item 5.

a) Proprietor:

Name: N/A

Address: _____

City: _____ State: _____ Zip: _____

9. Permit numbers for Applicant's previously issued NPDES Permits and identification of any other State Environmental Permits presently held by the Applicant within the State of Alabama:

Permit Name	Permit Number	Held by
City of Hoover Inverness WWTP	AL0025852	City of Hoover
City of Hoover Riverchase WWTP	AL0041653	City of Hoover

10. Identify all Administrative Complaints, Notices of Violation, Directives, or Administrative Orders, Consent Decrees, or Litigation concerning water pollution or other permit violations, if any against the Applicant within the State of Alabama in the past five years (attach additional sheets if necessary):

Facility Name	Permit Number	Type of Action	Date of Action
N/A	N/A	N/A	N/A

SECTION B – WASTEWATER DISCHARGE INFORMATION

1. List the following historical monthly flow rates recorded for the past five years for each outfall:

Outfall Number	Highest in Last 12 Months MGD	Highest Daily Flow MGD	Average Flow MGD
001 Plant to River	3.844	4.119	1.202

2. Attach a process flow schematic of the treatment process, including the size of each unit operation.

3. Do you have, or plan to have, automatic sampling equipment or continuous wastewater flow metering equipment at this facility?

Current:	Flow Metering	Yes	☑	No	☐	N/A ☐
	Sampling Equipment	Yes	☑	No	☐	N/A ☐
Planned:	Flow Metering	Yes	☐	No	☐	N/A ☑
	Sampling Equipment	Yes	☐	No	☐	N/A ☑

If so, please attach a schematic diagram of the sewer system indicating the present or future location of this equipment and describe the equipment below:

This plant has automatic flow metering and sampling equipment for the influent and outfall of the plant.

4. Are any wastewater collection or treatment modifications or expansions planned during the next three years that could alter wastewater volumes or characteristics (Note: Permit Modification may be required)? Yes ☐ No ☑

Briefly describe these changes and any potential or anticipated effects on the wastewater quality and quantity: (Attach additional sheets if needed.)

N/A

SECTION C – WASTE STORAGE AND DISPOSAL INFORMATION

Describe the location of all sites used for the storage of solids or liquids that have any potential for accidental discharge to a water of the state, either directly or indirectly via storm sewer, municipal sewer, municipal wastewater treatment plants, or other collection or distribution systems that are located at or operated by the subject existing or proposed NPDES-permitted facility. Indicate the location of any potential release areas and provide a map or detailed narrative description of the areas of concern as an attachment to this application:

Description of Waste	Description of Storage Location
Dried Sludge	Covered storage bin adjacent to drying beds

Describe the location of any sites used for the ultimate disposal of solid or liquid waste materials or residuals (e.g. sludges) generated by any wastewater treatment system located at the facility.

Description of Waste	Quantity (lbs/day)	Disposal Method*
Dried Sludge	5600	Landfill

***Indicate any wastes disposed at an off-site treatment facility and any wastes that are disposed on-site**

SECTION D – INDUSTRIAL INDIRECT DISCHARGE CONTRIBUTORS

1. List the existing and proposed industrial source wastewater contributions to the municipal wastewater treatment system (Attach other sheets if necessary)

Company Name	Description of Industrial Wastewater	Existing or Proposed	Flow (MGD)	Subject to SID Permit? Y/N
N/A	N/A	N/A	N/A	N/A

2. Are industrial wastewater contributions regulated via a locally approved sewer use ordinance? Yes ☐ No ☐ If so, please attach a copy of the ordinance.

SECTION E – COASTAL ZONE INFORMATION

Is the discharge(s) located within the 10-foot elevation contour and within the limits of Mobile or Baldwin County? Yes No ✓ If yes, then complete items A through M below:

		YES	NO
A.	Does the project require new construction?	☐	☐
B.	Will the project be a source of new air emissions?	☐	☐
C.	Does the project involve dredging and/or filling of a wetland area or water way?	☐	☐
	Has the Corps of Engineers (COE) permit been issued?	☐	☐
	Corps Project Number _____		
D.	Does the project involve wetlands and/or submersed grassbeds?	☐	☐
E.	Are oyster reefs located near the project site? (Include a map showing project and discharge location with respect to oyster reefs)	☐	☐
F.	Does the project involve the site development, construction and operation of an energy facility as defined in ADEM Admin. Code R. 335-8-1-.02(bb)?	☐	☐
G.	Does the project involve mitigation of shoreline or coastal area erosion?	☐	☐
H.	Does the project involve construction on beaches or dunes areas?	☐	☐
I.	Will the project interfere with public access to coastal waters?	☐	☐
J.	Does the project lie within the 100-year floodplain?	☐	☐
K.	Does the project involve the registration, sale, use, or application of pesticides?	☐	☐
L.	Does the project propose or require construction of a new well or to alter an existing groundwater well to pump more than 50 gallons per day (GPD)?	☐	☐
M.	Has the applicable permit for groundwater recovery or for groundwater well installation been obtained?	☐	☐

SECTION F – ANTI-DEGRADATION EVALUATION

It is the applicant's responsibility to demonstrate the social and economic importance of the proposed activity, if subject to antidegradation requirements. In accordance with 40 CFR 131.12 and Section 335-6-10-.04 of the Alabama Department of Environmental Management Administrative Code, the following information must be provided, if applicable. If further information is required to make this demonstration, attach additional sheets to the application.

1. Is this a new or increased discharge that began after April 3, 1991? Yes ☑ No ☐
   If "yes", complete question 2 below. If "no", do not complete this section.

2. Has an Anti-Degradation Analysis been previously conducted and submitted to the Department for the new or increased discharge referenced in question 1? Yes ☑ No ☐

   If "no" and the discharge is to a Tier II waterbody as defined in ADEM Admin. Code r. 335-6-10-.12(4), complete questions A through F below, ADEM Form 311-Alternatives Analysis, and either ADEM Form 312 or ADEM Form 313-Calculation of Total Annualized Project Costs (Public-Sector or Private-Sector Projects, whichever is applicable). ADEM Form 312 or ADEM Form 313, whichever is applicable, must be provided for **each** treatment discharge alternative considered technically viable. ADEM forms can be found on the Department's website at www.adem.alabama.gov/DeptForms. If "yes", do not complete this section.

   Information required for new or increased discharges to high quality waters:

   A. What environmental or public health problem will the discharger be correcting?

   B. Explain if and to what degree the discharger will be increasing employment as a result of the proposed discharge, either at its existing facility or as the result of the start-up of a related new facility or industry.

   C. Explain if and to what degree the discharge will prevent employment reductions?

   D. Describe any additional state or local taxes that the prospective discharger will be paying.

   E. Describe any public service the discharger will be providing to the community.

   F. Describe the economic or social benefit the discharger will be providing to the community.

SECTION G – EPA Application Forms

All Applicants must submit certain EPA permit application forms. More than one application form may be required from a municipal facility depending on the number and types of discharges or outfalls. The EPA application forms are found on the Department's website at www.adem.alabama.gov\programs\water. The required ADEM and EPA forms are summarized in Attachment 1.

SECTION H– ENGINEERING REPORT/BMP PLAN REQUIREMENTS

Any Engineering Report or Best Management Practice (BMP) Plans required to be submitted to ADEM by the applicant must be in accordance with ADEM 335-6-6-.08(i) & (j).

SECTION I– RECEIVING WATERS

Receiving Water(s)	303(d) Segment? (Y / N)	Included in TMDL?* (Y / N)
Cahaba River	Y	Y

*If a TMDL Compliance Schedule is requested the following should be attached as supporting documentation:
(1) Justification for the proposed Compliance Schedule (e.g. time for design and installation of control equipment, etc.); (2) Monitoring results for the pollutant(s) of concern which have not previously been submitted to the Department (sample collection dates, analytical results (mass and concentration), methods utilized, MDL/ML, etc. should be reported as available); (3) Requested interim limitations, if applicable; (4) Date of final compliance with the TMDL limitations; and (5) Any other additional information available to support the requested compliance schedule.

SECTION J – APPLICATION CERTIFICATION

THE INFORMATION CONTAINED IN THIS FORM MUST BE CERTIFIED BY A RESPONSIBLE OFFICIALAS DEFINED IN ADEM ADMINISTRATIVE RULE 335-6-6-.09 "SIGNATORY REQUIREMENTS FOR PERMIT APPLICATIONS" (SEE BELOW).

"I CERTIFY UNDER PENALTY OF LAW THAT THIS DOCUMENT AND ALL ATTACHMENTS WERE PREPARED UNDER MY DIRECTION OR SUPERVISION IN ACCORDANCE WITH A SYSTEM DESIGNED TO ASSURE THAT QUALIFIED PERSONNEL PROPERLY GATHER AND EVALUATE THE INFORMATION SUBMITTED. BASED ON MY INQUIRY OF THE PERSON OR PERSONS WHO MANAGE THE SYSTEM, OR THOSE PERSONS DIRECTLY RESONSIBLE FOR GATHERING THE INFORMATION, THE INFORMATION SUBMITTED IS, TO THE BEST OF MY KNOWLEDGE AND BELIEF, TRUE, ACCURATE, AND COMPLETE.I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT FOR KNOWING VIOLATIONS."

"I FURTHER CERTIFY UNDER PENALTY OF LAW THAT THE RESULTS OF ANY ANALYSES REPORTED AS LESS THAN DETECTABLE IN THIS APPLICATION OR IN ATTACHMENTS THERETO WERE PERFORMED USING THE EPA APPROVED TEST METHOD HAVING THE LOWEST DETECTION LIMIT READILY ACHIEVABLE FOR THE SUBSTANCE TESTED."

SIGNATURE OF RESPONSIBLE OFFICIAL:  DATE SIGNED: 9/29/17

(TYPE OR PRINT)

NAME OF RESPONSIBLE OFFICIAL: Allan Rice

OFFICIAL TITLE OF RESPONSIBLE OFFICIAL: City Administrator

MAILING ADDRESS: 100 Municipal Lane Hoover, AL 35216

AREA CODE & PHONE NUMBER: (205)444-7541

SIGNATORY REQUIREMENTS FOR PERMIT APPLICATIONS

Responsible official is defined as follows:

1. In the case of a corporation, by a principal executive officer of at least the level of vice president, or a manager assigned or delegated in accordance with corporate procedures, with such delegation submitted in writing if required by the Department, who is responsible for manufacturing, production, or operating facilities and is authorized to make management decisions which govern the operation of the regulated facility
2. In the case of a partnership, by a general partner
3. In the case of a sole proprietorship, by the proprietor, or
4. In the case of a municipal, state, federal, or other public facility, by either a principal executive officer, or a ranking elected official.
5. In the case of a private or semi-public facility, the responsible official is either a principal executive officer or the owner of the corporation or other entity.

Attachment 1 to Supplementary Information Form

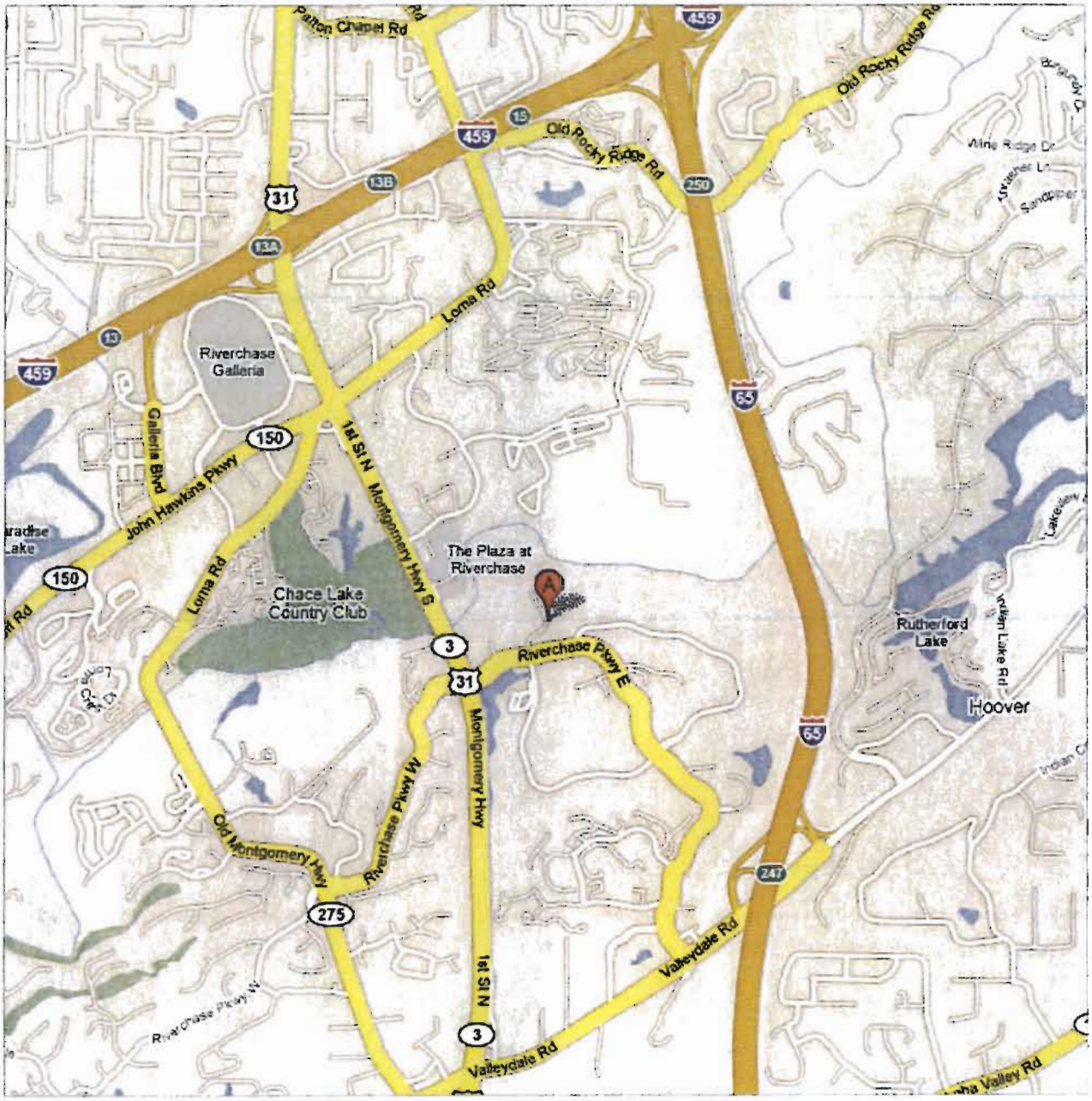
NPDES PROGRAM
PERMIT APPLICATION FORMS
ALABAMA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

TYPE DISCHARGE	ADEM FORMS	EPA FORMS
New or existing once through non-contact cooling water and/or cooling tower blowdown, and/or sanitary wastewater (non-process wastewater only). Note: POTWs and privately owned domestic treatment works should use Form 2A.	Supplemental Information Form 187 (Industrial) or Form 188 (Municipal)	Forms 1 and 2E
Existing discharges of process wastewater	Supplemental Information Form 187 (Industrial) or Form 188 (Municipal)	Forms 1 and 2C
New discharges of process wastewater	Supplemental Information Form 187 (Industrial) or Form 188 (Municipal)	Forms 1 and 2D
New or existing discharges composed entirely of stormwater meeting the EPA definition of stormwater associated with industrial activity	Supplemental Information Form 187 (Industrial) or Form 188 (Municipal)	Forms 1 and 2F
New or existing discharges composed of stormwater meeting the EPA definition of stormwater associated with industrial activity, and any other non-stormwater discharges.	Supplemental Information Form 187 (Industrial) or Form 188 (Municipal)	Forms 1 and 2F and, as appropriate, Forms 2E, 2E, 2C, and/or 2D
New or existing Publicly-Owned Treatment Works (POTWs) and Privately-Owned Treatment Works composed of sanitary wastewater	Supplemental Information Form 187 (Industrial) or Form 188 (Municipal)	Forms 1 and 2A
New or existing land application of process wastewater. Form 2F is required for stormwater runoff from the land application site, if the site is not completely bermed to prevent runoff.	Supplemental Information Form 187 (Industrial)	Forms 1, 2F, and 2C or 2D, as appropriate
New or existing land application of sanitary wastewater. Form 2F is required for stormwater runoff from the land application site, if the site is not completely bermed to prevent runoff.	Supplemental Information Form 187 (Industrial) or Form 188 (Municipal)	Forms 1, 2A, and 2F

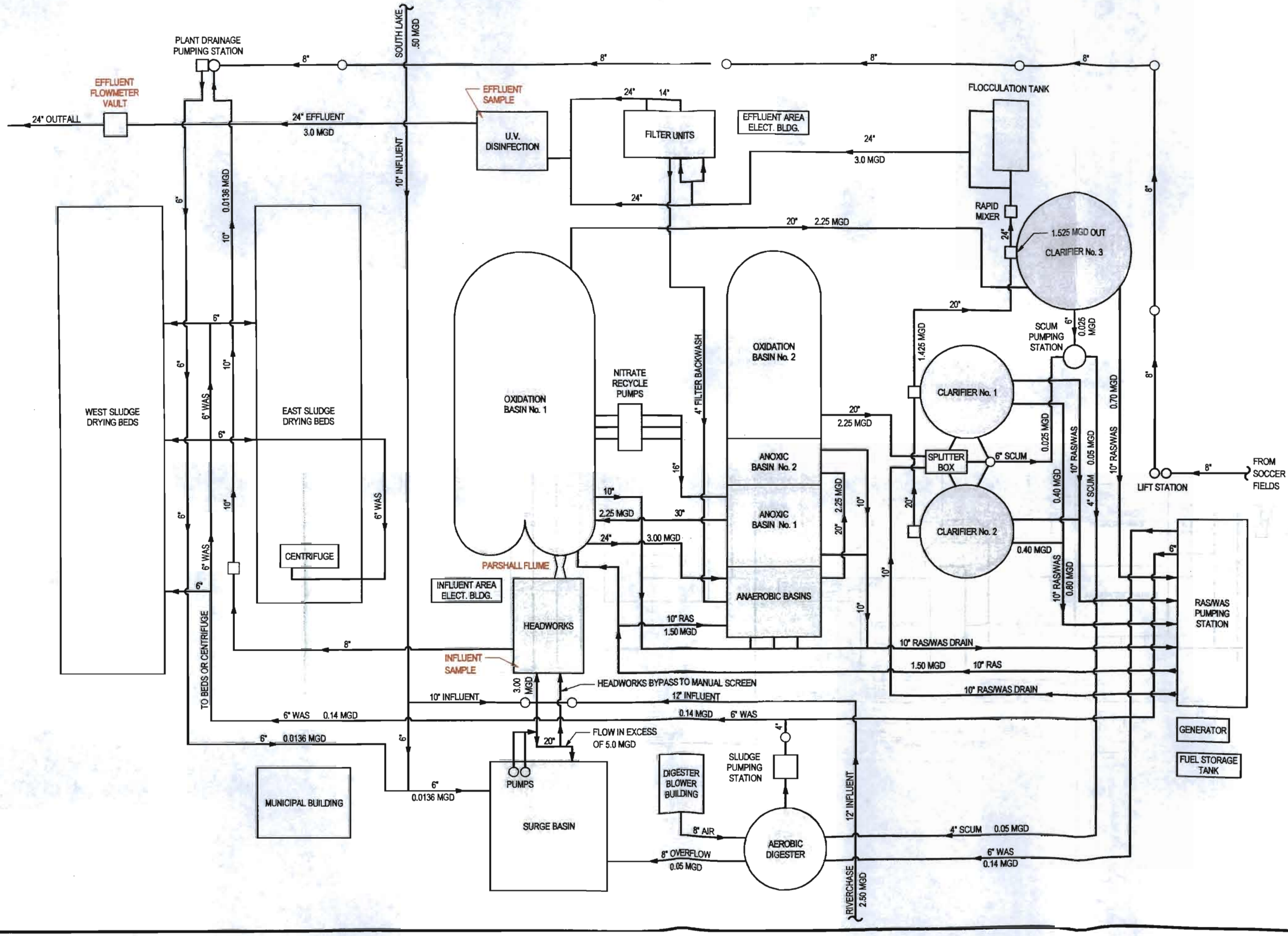
Testing requirements: Test procedures for all analyses shall conform to 40 CFR Part 136 or an alternate method specifically approved by the Department. If more than one method of analysis is approved, then the method having the lowest detection level shall be used.

Google Maps

Address **2004 Parkway River Rd**
Birmingham, AL 35244




Riverchase WWTP
2004 Parkway River Road
Hoover, AL 35244
RIME VILLAGE DR
GOLDEN ACORN DR
RIVERHAVEN DR
RIVERHAVEN CIR
DANIELS RD
LORNADELL RD
RIVERCHASE PKY E
PARKWAY OFFICE CIR
PRIVATE
WILDFLOWER DR
GABLES DR



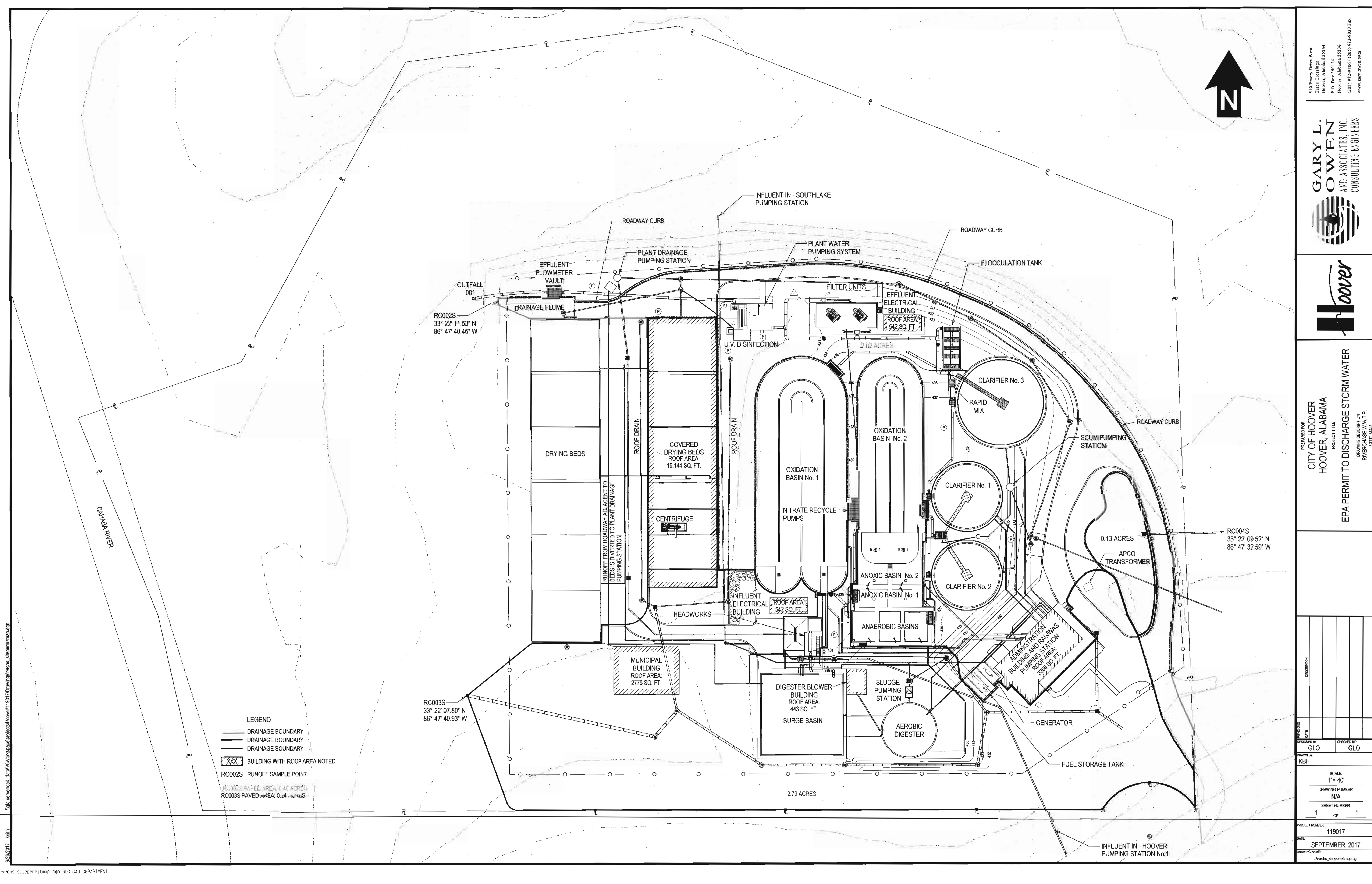
GARY L. OWEN AND ASSOCIATES, INC. CONSULTING ENGINEERS
310 Savoy Drive West
Post Office Box 37244
Hoover, Alabama 35244
(205) 982-9606 / (205) 982-9650 Fax
www.garylowen.com

PREPARED FOR
CITY OF HOOVER
HOOVER, ALABAMA

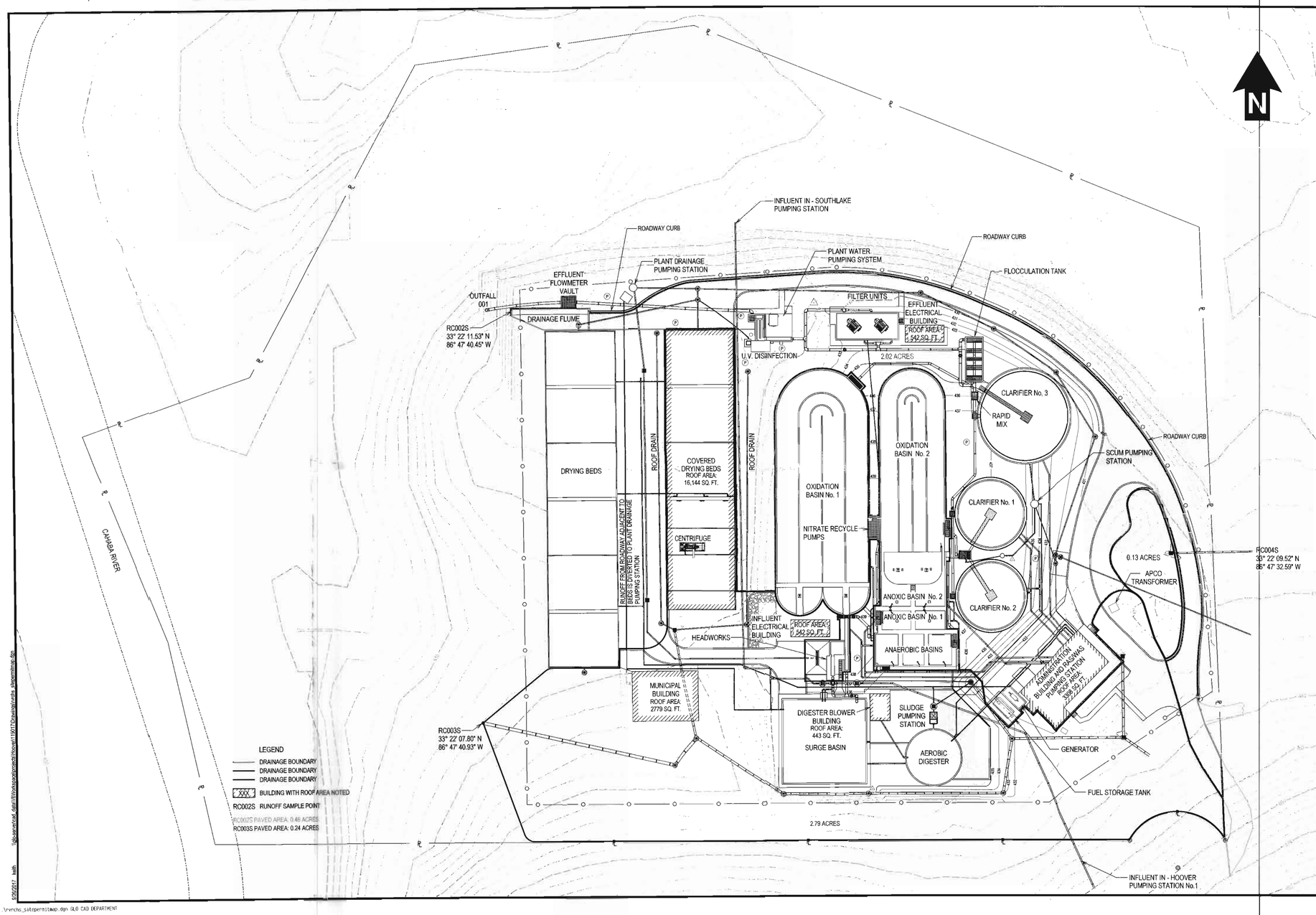
PROJECT TITLE
RIVERCHASE WWTP EXPANSION

DRAWING DESCRIPTION
PROCESS FLOW DIAGRAM

DRAWN BY	GLO
CHECKED BY	GLO
DESIGNED BY	KBF
SCALE	NO SCALE
DRAWING NUMBER	N/A
SHEET NUMBER	1 OF 1
PROJECT NUMBER	97900
DATE	FEBRUARY, 2009
DRAWING NAME	97900_processflow.dgn



PREPARED FOR
CITY OF HOOVER
HOOVER, ALABAMA
PROJECT TITLE
EPA PERMIT TO DISCHARGE STORM WATER
DRAWING DESCRIPTION
RIVERCHASE W.W.T.P.
SITE MAP
GARY L. OWEN AND ASSOCIATES, INC.
CONSULTING ENGINEERS
510 Emery Drive West
Trace Crossings
Hoover, Alabama 35244
P.O. Box 360124
Hoover, Alabama 35236
(205) 982-9806 / (205) 982-9030 Fax
www.garylowen.com
Hoover
REVISIONS
DATE
DESCRIPTION
DESIGNED BY: GLO
CHECKED BY: GLO
DRAWN BY: KBF
SCALE: 1"= 40'
DRAWING NUMBER: N/A
SHEET NUMBER: 1 OF 1
PROJECT NUMBER: 119017
DATE: SEPTEMBER, 2017
DRAWING NAME: rvrchs_sitepermitmap.dgn
© GARY L. OWEN AND ASSOCIATES, INC.
N
RC004S
33° 22' 09.52" N
86° 47' 32.59" W
0.13 ACRES
APCO TRANSFORMER
ROADWAY CURB
SCUM PUMPING STATION
FLOCCULATION TANK
CLARIFIER No. 3
RAPID MIX
CLARIFIER No. 1
CLARIFIER No. 2
ADMINISTRATION BUILDING AND RAS/WAS PUMPING STATION ROOF AREA: 3308 SQ. FT.
GENERATOR
FUEL STORAGE TANK
INFLUENT IN - HOOVER PUMPING STATION No.1
EFFLUENT ELECTRICAL BUILDING ROOF AREA: 542 SQ. FT.
2.02 ACRES
OXIDATION BASIN No. 2
ANOXIC BASIN No. 2
ANOXIC BASIN No. 1
ANAEROBIC BASINS
SLUDGE PUMPING STATION
AEROBIC DIGESTER
FILTER UNITS
PLANT WATER PUMPING SYSTEM
INFLUENT IN - SOUTHLAKE PUMPING STATION
OXIDATION BASIN No. 1
NITRATE RECYCLE PUMPS
INFLUENT ELECTRICAL BUILDING ROOF AREA: 542 SQ. FT.
DIGESTER BLOWER BUILDING ROOF AREA: 443 SQ. FT.
SURGE BASIN
2.79 ACRES
U.V. DISINFECTION
ROOF DRAIN
COVERED DRYING BEDS ROOF AREA: 16,144 SQ. FT.
CENTRIFUGE
HEADWORKS
PLANT DRAINAGE PUMPING STATION
MUNICIPAL BUILDING ROOF AREA: 2779 SQ. FT.
RUNOFF FROM ROADWAY ADJACENT TO BEDS IS DIVERTED TO PLANT DRAINAGE PUMPING STATION
DRYING BEDS
EFFLUENT FLOWMETER VAULT
DRAINAGE FLUME
OUTFALL 001
RC002S
33° 22' 11.53" N
86° 47' 40.45" W
RC003S
33° 22' 07.80" N
86° 47' 40.93" W
LEGEND
DRAINAGE BOUNDARY
DRAINAGE BOUNDARY
DRAINAGE BOUNDARY
BUILDING WITH ROOF AREA NOTED
RC002S RUNOFF SAMPLE POINT
RC002S PAVED AREA: 0.46 ACRES
RC003S PAVED AREA: 0.4 ACRES
CAHABA RIVER
9/26/2017 keith \\glo-server\cad_data\V8Workspace\projects\Hoover\119017\Drawings\rvrchs_sitepermitmap.dgn
...\rvrchs_sitepermitmap.dgn GLO CAD DEPARTMENT



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PREPARED FOR
CITY OF HOOVER
HOOVER, ALABAMA
PROJECT TITLE
EPA PERMIT TO DISCHARGE STORM WATER

DESCRIPTION
DATE
DESIGNED BY: GLO
DRAWN BY: KBF
CHECKED

SCALE: 1" = 40'
DRAWING NUMBER: N/A
SHEET NUMBER: 1 OF
PROJECT NUMBER: 119017
DATE: SEPTEMBER, 2
DRAWING NAME: hvrchs_sitepermitmp

9/26/2017 keith
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